

ANDRITZ Smelt Spout Cleaning Systems

Improving Safety in the Recovery Boiler

ANDRITZ Smelt Spout Cleaning Systems are proving to be something of a hit with recovery boiler operators worldwide, with several successful installations and more than 20 new systems on order.

Jarkko Brunou, Product Manager, ANDRITZ Oy says, "We have had an excellent response to our first Smelt Spout Cleaning Systems, which basically use robots to monitor and clear the smelt spouts in the recovery boiler. This is a very hot and potentially dangerous area and using the robotic cleaning systems means that much fewer person-hours need to be spent working on the spout deck.

"Although our first installations have been well received and have been operating successfully, we at ANDRITZ have also learned a lot about how the robots operate in such a harsh environment and because of this we have added a number of new and extra features to our systems."

NEW FEATURES ACROSS THE BOARD

New features that are now available with the Smelt Spout Cleaning System include: a more powerful robot with stronger cleaning power, smelt reduction measurement, a collision-free robotic operation, a new suit, specially designed and built cameras, a smart cleaning function, and tool cleaning station. ANDRITZ has also made installation of the system a lot easier and safer by designing a

new robot frame that further increases safety and greatly reduces erection and installation time.

"One of the main advances we have made is to make the robot even more powerful than the previous ones," says Brunou. "They now have a payload of 250 kg as opposed to 150 kg. Added to this, we have updated the tool, which makes it more durable and stable, giving more consistency during spout cleaning."

Another major addition to the system is the new smelt reduction measuring feature, Brunou explains, "This is a world first; we can now automatically measure smelt reductions by taking samples from each spout and measuring them separately. This is a major advancement as the results from the samples are instant. In normal operations, you would have to wait several hours for feedback."

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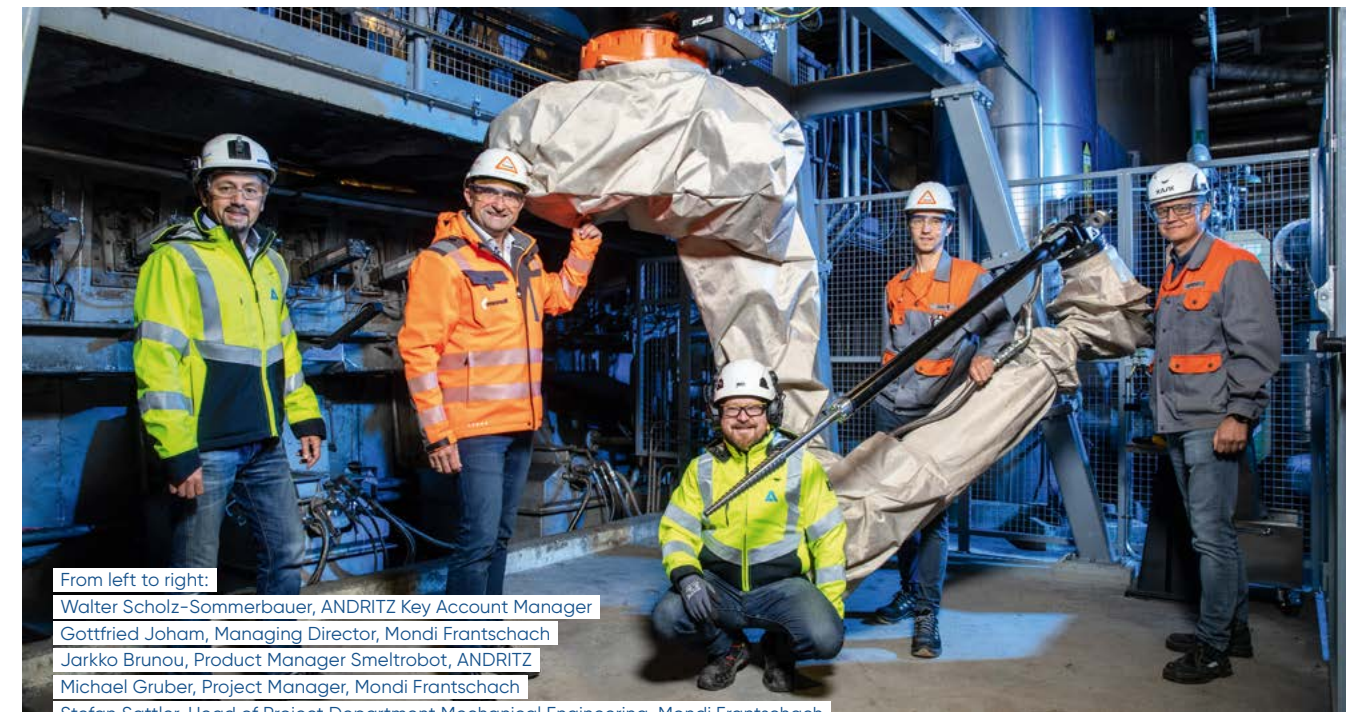


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"By using a robot, we have substantially reduced the physical and also mental strain in this exposed area."

Gottfried Joham
Managing Director at Mondi Frantschach



From left to right:

Walter Scholz-Sommerbauer, ANDRITZ Key Account Manager

Gottfried Joham, Managing Director, Mondi Frantschach

Jarkko Brunou, Product Manager Smeltrobot, ANDRITZ

Michael Gruber, Project Manager, Mondi Frantschach

Stefan Sattler, Head of Project Department Mechanical Engineering, Mondi Frantschach

SMELT SPOUT CLEANING SYSTEM AT MONDI FRANTSCHACH

One of the latest installations of the Smelt Spout Cleaning System took place at the Mondi Frantschach mill in Carinthia Province, Austria, in September 2021.

Michael Gruber, Project Manager at the Frantschach mill says, "At Mondi we are always looking for ways to reduce risks to our employees, and here our focus was the smelt spout area. After looking at various options on the market, we decided upon the ANDRITZ system as it fitted well into the tight area in front of the smelt spouts in our recovery boiler. Another advantage was that our recovery boiler at the mill was delivered and installed by ANDRITZ, which meant there was already a lot of knowledge of the equipment and processes. It also meant that the whole package could be installed with the minimum of fuss as the interfaces were the same."

After some consultation, the contract for a Smelt Spout Cleaning System was signed in January 2021. ANDRITZ supplied a complete system to the mill, including a smelt spout robot with a payload of 210 kg and a working radius of R3100. It also supplied a cleaning station, DCS control, and on-arm cameras.

"We were really pleased at how the installation of the cleaning system went," says Gruber. "Despite a tight space in the smelt spot area and the movement of heavy equipment, ANDRITZ had planned the operation perfectly, with all engineers automatically knowing what they had to do next to ensure a smooth installation."

Gottfried Joham, Managing Director at Mondi Frantschach, sums up the importance of the new system at the mill, "Installation and operation of the new smelt spout robot at recovery boiler #4 has created a milestone in terms of greater work safety in this very challenging environment. By using a robot, we have substantially reduced the physical and also mental strain in this exposed area."

Walter Scholz-Sommerbauer, ANDRITZ Pulp and Paper Mill Service and Mondi Frantschach Key Account Manager, concludes, "It is very nice to hear that our robotic system is fully integrated into the daily business at the mill and that it will lead to improved safety for the customer. We are proud to be a partner with the Mondi Group with our new innovation, which adds to several other references that we already have in our regional market."

