



Company News

## **Doppelmayr: RopeCon Conveying System at Booysendal Platinum up and running**

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The RopeCon system which transports platinum ore from Booysendal South to the existing processing plant has recently gone into operation. The South African mining company Booysendal Platinum (Pty) Limited, a subsidiary of Northam Platinum Limited, is relying on technology by Doppelmayr for their expansion project at the Booysendal concession. Every hour, at least 909 tons of material will be transported over a distance of approx. 4.8 km through hilly terrain.



The terrain between the new mining areas to the

north of the Booysendal concession and the existing processing plant is challenging in terms of topography. In a straight line, a distance of approx. 4.8 km and a difference in elevation of 530 m must be covered. For the expansion of the Booysendal mine, a cost-effective, reliable and safe means of transport was required, and Booysendal Platinum (Pty) Limited opted for a RopeCon<sup>®</sup> system to tackle the challenge of transporting 909 tons of platinum ore. RopeCon<sup>®</sup> is a technology developed by the ropeway manufacturer Doppelmayr. The system

offers the advantages of a ropeway and combines them with the properties of a conventional belt conveyor. It essentially consists of a flat belt with corrugated side walls. Just as on conventional belt conveyors, the belt performs the haulage function. It is driven and deflected by a drum in the head or tail station and fixed to axles arranged at regular intervals to carry it. The axles are fitted with plastic running wheels which run on fixed anchored track ropes and guide the belt. The belt is supported by the ground on tower structures.



The material mined at Booyssendal South is loaded onto the RopeCon<sup>®</sup> belt via a silo and two chutes. In the vicinity of the processing plant, the RopeCon is linked to the existing conveying equipment. A switch chute allows for the material either to be transferred directly onto a feeder conveyor to take it to the processing plant, or to be discharged onto a stockpile via a second, smaller RopeCon<sup>®</sup> thus creating a temporary puffer. Booyssendal was also particularly careful to choose a transport system that would minimise the environmental footprint of the mine. Because RopeCon<sup>®</sup> is guided over towers, the only space required on the ground is for these structures, which, in the case of Booyssendal, amount to no more than 12. At the same time, the system does not represent an insurmountable obstacle for wildlife or humans. The track crosses a number of roads, and even wildlife can roam freely underneath the RopeCon<sup>®</sup>. Construction of the RopeCon<sup>®</sup> commenced in January 2018. 11 months later, and perfectly on schedule, commissioning began. Since 20 December, 2018, the installation has been transporting approximately 20,000 tons of platinum ore per day over a distance of 4.8km between the mining area and the existing plant. As part of an additional expansion programme, Booyssendal awarded to Doppelmayr the contract for a second RopeCon<sup>®</sup>, which will connect with the first system and enable transport from another mining area north of the concession. The second system is designed to transport 400 tons per hour over 2.8 km and a difference in elevation of -160 m. It is due to start operating in early 2021.