

PRESS RELEASE:

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Going to great lengths for the value pipeline

- Aegion South Africa provides 18m spools for concentrate hydro-transportation at mining project resulting in 10 % project cost savings

In the high-stakes game of mining today, margins are tighter and under more pressure than ever. To remain viable, mining companies are becoming more scientific and are employing the latest technologies to ensure sustained profitability. Increasingly, they are turning to technology partners to provide advanced technical solutions to various mining challenges.

One such company is an international mining major's recent project in South America; which required a cost-effective means of transporting copper concentrate 23 km from the relevant mine to the nearest harbour. Intensive investigations revealed that hydro-transportation would be the best means of achieving this. The solution called for two, 23 km, 200mm nominal bore (nb) high-pressure HDPE-lined pipe systems.

For a value-adding hydro-transportation solution, the mining company turned to the US-based company Aegion, world-recognised experts in the field of hydro-transportation and pipeline rehabilitation technology.

The mine which Aegion supplied is a large open-pit copper project under development towards phased commissioning during 2018, with continued ramp-up over 2019. This project will increase production at the mine from 70Mta to 85Mta, with concentrate production increasing from 150,000t to 270,000t annually.

To supply the required 'spools' or pipeline sections, Aegion took the decision to manufacture the 46km of pipe spools at Aegion South Africa, its local subsidiary, the majority shareholders of which are Robor South Africa (40%) and Aegion International (60%). The decision to manufacture in South Africa was based on the fact that Robor had already successfully completed a project for the same client at one of its Zambian operations.

"Regarding the Zambian tailings management facility, it is great example of one of this client's best managed and operated lines; and went a long way in affirming the level of value which can be generated when technology is combined with services," says Johann Scholtz, General Manager of Aegion South Africa.

The pipe sections or spools that Aegion South Africa supplied needed to meet very exacting specifications. The completed pipeline had to be able to withstand the massive internal pressures

required to pump concentrate over a distance of 23 km. For the client, the unquestioned integrity and reliability of the pipeline was a key consideration, as the hydro-transportation system would be transporting high-value copper concentrate.

"Fortunately, we have the most advanced hydro-transportation intellectual property at our disposal; as well as pan-African pipeline engineering excellence," comments Scholtz.

Aegion South Africa received the order in June 2017 and completed the final product shipment nine months later in February 2018.

The challenges in undertaking this project were significant in a number of aspects. After initial technical consultations, the client opted to manufacture the recommended high-pressure HDPE-lined steel spools in 18 m lengths. Manufacturing spools to this length is not conventional practice, due to the technical challenges encountered in manufacturing, the logistical hurdles and the high transport costs.

However, the value-add for the client was considerable. For pipeline operators, from an installation, operating and maintenance perspective, the best solution is one continuous pipeline with no joints at all, as the cost of joints can comprise as much as 20% of the cost of a spool. However, in terms of construction and topographical challenges, in reality this is not practical.

"In this instance, our decision to manufacture in 18 m spool lengths resulted in a 10% saving on project costs for our client," explains Scholtz.

This required the complete re-engineering of Aegion SA's Johannesburg manufacturing facilities - and the construction of a brand-new plant to build the exceptionally long spools. Notably, this new, technically-advanced plant took a mere 80 days to construct and, once in production, produced 700 metres of pipes / spools daily.

"For our industry, this level of production set a new benchmark," continues Scholtz. This heightened production was essential to meet the client's tight shipping schedule - with 2,770 abnormal lengths needing to be shipped from Johannesburg to South America in a period of nine weeks.

"Tribute needs to be paid to our client's logistics team - as well as to our logistics partner - who together ably overcame the various transportation and shipping challenges," says Scholtz, adding that Aegion South Africa's ability to manage the complexities of international export also contributed to a successful outcome.

"With a highly significant project such as this, our priority is, as always, to provide value. When advanced technology needs to be employed, it must save the client money while allowing the supplier to be more efficient," explains Scholtz.

“We were immensely proud to be part of this very major project, and look forward to further offering Aegion South Africa's specific value propositions in terms of hydro-transportation and pipeline rehabilitation expertise to the international mining industry in future,” he concludes.

Ends

(801 words)

Note to Editors

About Aegion South Africa

Aegion South Africa was established to provide state-of-the-art technology solutions to cost-effectively address the deteriorating state of Southern Africa's pipeline infrastructure. The majority shareholders in this independent company are Robor South Africa (40%) and the US-based company Aegion (60%).

Conventional methods of repair involve digging up old pipelines and replacing them, involving major disruption to other infrastructure along the route of the pipe.

Aegion South Africa circumvents this through the application of their tried and tested, proprietary international trenchless methodologies – thereby achieving permanent, stronger and safer solutions for the rehabilitation of pipeline infrastructure - combined with excellent local experience and expertise. The company has also developed a locally relevant business model which accommodates the various stakeholders that are invariably involved in any major rehabilitation project.

It is furthermore vital that all pipes operate safely without leaks. This stringent adherence to safety and environmental compliance carries over to the execution of any project as a whole.

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