

STAINLESS STEEL

Water pipes, electric vehicles potential growth markets for stainless steel

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The South African stainless steel sector can benefit from the rise in electric vehicles and the replacement of water pipes, says Southern Africa Stainless Steel Development Association (Sassda) executive director **John Tarboton**.

“Getting stainless steel water pipes into the water system has been a big drive for Sassda over the past year or two. In particular, we want to replace the municipal service pipes that connect distribution pipes to the water meters with stainless steel pipes.”

The pipes that connect the distribution

pipes to water meters are small in diameter and buried underground, making leaks more difficult to detect. Another factor that plays a role in the lack of detection is that these connections are set before the water meters. A consumer is not going to notice a spike in water use or pay for water that is leaking, Tarboton stresses, adding that about 95% of leaks occur at these points.

The International Stainless Steel Forum did an international life-cycle costing and investigated the difference in cost for a municipality that uses stainless steel service pipes, that have a 100-year life as opposed to plastic pipes that need to be replaced about every 20 years. Even though stainless steel is more expensive up front, in the long run, stainless steel pipes are more affordable.

Sassda is conducting similar life-cycle costing locally. It has a prototype pipe that has been installed at a property development in Paarl to test the mechanical performance of the prototype in a buried application. The prototype will be exhumed after a year to track the pipe’s performance. Sassda is also in talks with the Steve Tshwete municipality in Middelburg, Mpumalanga, to replace water pipes, as well as getting prototypes into new builds in the province, Tarboton points out.

Further, the electric vehicle industry is another potential area of growth, and it will be driven mainly by steel producers that supply stainless steel for automotive exhaust systems. One of the largest consumers of stainless steel in South Africa is the export-heavy catalytic converter industry.

However, with the start of the demise of the internal combustion engine, these stainless steel producers are going to have to consider different applications for stainless steel, says Tarboton. This could include using stainless steel in the hydrogen fuels cells and the batteries powering vehicles, as well as in the structure of electric vehicles, as weight will be even more important in the construction of such vehicles. Tarboton concludes that this potential will manifest as long-term growth, in about 10 to 20 years. ■

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