

Press release:

Making a Clean Sweep: RTS's spin filters keep mining sub-stations clean and dust-free

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Tshwane-based Rand Technical Services (RTS) has made a name for itself for coming up with innovative technologies and solutions to industrial challenges. Since the early 1990s the company, under the leadership of Managing Director Ian Fraser, has brought a range of quality products to the market, backed by expert technical consultation.

The company's spin filter technology is another example of their leadership in this regard. While the concept of spin filters is not new, RTS has been at the forefront of introducing the technology to the South African industry, with a focus on mining.

Fraser explains how the technology works: "Spin filter units are a high-efficiency application of cyclone technology. Air to be separated is blown through a module that consists of a series of small vortexes. The air flow is induced to spin by fixed vanes at the entry to the vortexes, and centrifugal force then drives the dirt particles to the outside of the vortex."

According to Fraser, spin filters provide an extremely effective answer to the problem of dust build-up. "Conventional filtration methods often require costly maintenance and filter membrane replacement on an ongoing basis. However, spin filter technology provides a method of eliminating dust and it is virtually maintenance-free."

For Cassiem Solomon, an Electrical Engineer at ProProcess, the fact that spin filters require little or no maintenance is a compelling draw-card.

"Conventional fan or filter systems - the more conventional sub-station filtering solution - tend to get clogged up and just stop working after a while. For most mining operations, this is a very messy and time-consuming problem," notes Solomon.

Having been introduced to spin filtration by observing one in action on a mine five years ago, Solomon was impressed at how effective the filter was in keeping the sub-station dust-free.

ProProcess, a consulting firm providing design and project management services predominantly to the mining and petrochemical industries, has now given specifications for spin filters in two of its mining projects, one in the Northern Cape and one in the Democratic Republic of Congo (DRC).

“Spin filters have an exceptionally long working life,” maintains Fraser. “We have installations still going strong that are 23 years old. Spin filters are proving to be very effective in mining applications with heavy dust loads. This technology is finding wide application in coal, gold, diamond and other mining environments, which include MCC rooms, control rooms, sub-stations, transformer rooms, machinery spaces and workshops.”

“The technology is definitely gaining traction, and we are in the process of investigating its application in packaged plants for the mines,” says Solomon. “We have learnt a lot from RTS who have provided very sound technical advice and have been extremely helpful in this process.”

“Efficient filtration is an essential component of any operation, because without it, many processes would simply grind to a halt,” says Fraser. “The benefits of the spin filter system are almost endless. Customers are seeing a cost benefit, due to a substantially smaller spend on filtration maintenance and replacement – not to mention the ongoing reduction in equipment breakdown and support costs. Environmental benefits are also considerable, due to the reduction in undesirable emissions.

“This is the kind of simple technical solution to a costly industrial problem that RTS is proud to put its name behind,” concludes Fraser.

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(640 words)

Note to Editors

Rand Technical Services, or RTS, is a specialised, Tshwane-based company offering innovative technologies and solutions to industrial problems.

Run by Managing Director Ian Fraser since its inception in the early 1990's, the company offers globally-sourced, quality products such as continuous belt weighers without load cells, laser-based gas detection devices for hot or corrosive areas, and electrolyzers for hydrogen production.

Product delivery and technical consultation by highly-trained staff is offered throughout Southern Africa to a range of clients in industry sectors such as mining, glass, steel and energy.

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