**PRESS RELEASE**

Procon technology can assist aluminium sector in improving billet quality

***12 March, 2013:*** *Aluminium manufacturers in South Africa can produce a better quality billet by making use of advanced water filtration systems that are developed and supplied by leading environmental management expert, Procon Environmental Technologies.*

Aluminium smelters contain large water cooling systems to spray the billets during the manufacturing process, and Procon environmental manager **Jacques Steyn** notes that oil often gets into the water cooling system as a result of leaks, thereby slowing down the cooling process and compromising the quality of the aluminium billet.

"When oil is present in the water cooling system, it results in the billets being stained during the cooling process, which ultimately lowers overall product quality. Due to the fact that oil maintains heat for considerably longer periods that water, its presence in the cooling system also slows down the cooling process, thereby increasing turnaround times and overall costs," he explains.

Steyn highlights the fact that the Procon Ultraspin hydrocyclone system, together with its MyCelx filtration system, can significantly increase efficiency in the aluminium sector. The Ultraspin water separation system is designed to handle more than 110 m3 of water per hour, which is first received from the wash bay in two separate spill basins, which each contain one skimmer.

"The Ultraspin separator works on a simple principle, whereby the oily water is pumped tangentially into the large diameter end of the separator, which initiates a spinning vortex. This spinning vortex is accelerated as it moves down the tapered separation tube, transporting the heavier water to the outside walls, while the lighter oil moves to the centre. The separated oil is then removed via the separator end face, and the treated water is discharged out the other end of the tube,” says Steyn.

Unlike plate pack style separators, Steyn notes that the Ultraspin separator does not rely on weak gravity forces for separation. “The centrifugal force generated inside the vortex of the Ultraspin separator is around 1 000 times the force of gravity. With such force, even emulsified oil droplets can be separated. The hydro cyclone technology is able to remove 95% of 10-15 micron oil droplets from the water, ultimately resulting in an 85% water saving strategy, which eliminates the potential hydrocarbon pollution that can occur downstream without such a system.”

The MyCelx system is then installed after the Ultraspin process to filter out the remaining hydrocarbons, and Steyn points out that Procon is able to guarantee 99,9% removal of TPH and oil and grease from the water. "This guarantee ensures that clients in the aluminium sector will meet the national standard of less than 2,5 parts per million (ppm).”

Upon contact with MyCelx, oily pollutants in the air and water bond immediately and are permanently attached to the filter media. With the use of either MyCelx patented engineered oil/hydrocarbon removal filters or filtration process solutions, the air and water is free of any oil and hydrocarbons. "MyCelx instantly removes 99,9% of hydrocarbon contaminants in a single pass, even at high flow rates,” Steyn continues.

What’s more, the system is environmentally-friendly, and never releases a hydrocarbon chain once in contact with MyCelx. It permanently binds slightly soluble organic compounds and colloidal metals, and will not release pollutants due to its visco-elastic nature.

Additional advantages of MyCelx include; Speed: It has a small footprint and is easy to install in a matter of minutes. Simplicity: No rotary or electrical parts make the system operator friendly and easy to maintain. Reliability: Once the filter captures and binds to the oils, it will not release any oil. Steyn notes that both systems can be installed within the cooling water system with a minimal footprint, which allows for seamless integration.

Although Procon has not yet expanded its reach into the South African aluminium industry, Steyn points out that the company has obtained measurable success in international markets such as Australia and Malaysia. "Clients in these sectors have provided us with extremely positive feedback regarding the improved quality of billet after commissioning Ultraspin and MyCelx. With this in mind, I am confident that Procon can add substantial value to the local aluminium sector, which holds considerable prospects for the company moving forward," he concludes.

Whether the requirement is prevention, containment, clean-up, process treatment or recovery, Procon has the leading products and applications to fulfil those needs. Procon also offers a project management capability that can take a scheme from inception through to conclusion and follow-up field service if required to complete the spectrum of its fully integrated treatment programmes.

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**Notes to the Editor**There are numerous photographs specific to this press release. Please visit <http://media.ngage.co.za> and click the Procon Environmental Technologies link.

**About Procon Environmental Technologies**Today more than ever before it is the responsibility of companies and their employees to be aware of pollution and its environmental consequences. While the first principle of environmental management is that prevention is better than cure, accidents and spills do happen. It is for this reason that Procon Environmental Technologies was established in 1993. We offer a full scope of Environmental Products & Technologies, specializing in systems that minimize the impact of contamination on the environment and surrounding areas. The company has secured exclusive partnerships with international companies that are world leaders in their field of expertise.

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