**PRESS RELEASE**

Locally manufactured oily water separator boasts world-class technology

***16 September, 2014:*** *A locally developed oily water separator that boasts internationally-recognised technology is now available across South Africa through leading environmental management expert Procon Environmental Technologies, which hosted an official product launch at the 2014 Electra Mining Conference in Johannesburg in September.*

The ProSpin oily water separator solution is based on HiPer hydrocyclone designs that use strong centrifugal forces to separate oil and other contaminants from water. The product range includes pneumatic engineered solutions for 3 m3/h to 9 m3/h of oily water flow, as well as electrical engineered solutions dealing with flows from 3 m3/h upwards.

As environmental compliance and sustainability continues to play an increasingly important role in the African mining sector, Procon managing director **Kuno Kerlen** states that the innovative and cost effective ProSpin solution greatly assists mining operations in meeting discharge limits. “It also adds value to the local economy, due to the fact that it is manufactured locally,” he explains.

At the core of this advanced technology is multi-port entry in the hydrocyclone, which allows for greater separation, when compared to the older two-port entry hydrocyclone. Kerlen indicates that contrary to tangential or axial cyclones, ProSpin uses a mixed flow principle which results in a stabilising and coalescing effect on the oil-water flow.

“All available pressure energy is converted in the rotating motion responsible for separation. As a result, common negative effects in conventional cyclones, such as boundary layer disturbances and flow-destabilisation, are eliminated,” he says.

According to Kerlen, aero-engine fluid mechanics were used for designing the swirl element. “The shape of the swirl is such that the coalescence of light phase droplets is achieved in the first section of the swirl element. In the second section of the swirl, stabilising assures that the flow maintains stability without re-mixing the pre-separated flow.”

Finally, in the third section of the element, the G-force is increased to avoid boundary layer separation and other losses in the specially designed tapered section. The total result is a cyclone which ensures the highest possible efficiency in combination with the lowest pressure drop.

ProSpin hydrocyclone technology is able to remove 95 per cent of 10 to 15 micron oil droplets from the water. Greater hydrocarbon removal can be achieved by combining Procon's proprietary MyCelx filtration and ProSpin oily water separation solutions. After using ProSpin, MyCelx is installed afterwards to filter out the remaining hydrocarbons. Upon contact with MyCelx, oily pollutants in the air and water bond immediately and are permanently attached to the filter media.

MyCelx instantly removes 99,9 percent of hydrocarbon contaminants in a single pass, even at high flow rates. 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. This guarantees that Procon clients meet the national discharge standard of less than 2,5 parts per million (ppm).

Kerlen reveals that the ProSpin solution will be installed on the wash bays at two separate mining operations. “The high separation efficiency, low pressure drop, and low maintenance of the system is a major advantage for local operations. As a result, I am confident that ProSpin will gain measurable market share in the near future,” he concludes.

***Ends***

**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, specialising in systems that minimise 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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