



ACS

Newsletter

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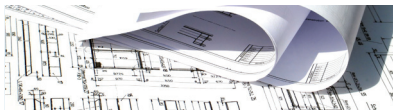


Editorial

As many other European companies, Advanced Cyclone Systems (ACS) experienced difficulties in penetrating the European markets in 2011. Indeed, ACS most promising applications are in the renewable area, which is suffering a slowdown due to the economic crisis. Consequently, it's not a surprise that three among six biomass projects starting in 2011 were outside Europe, namely in South Africa and Chile.

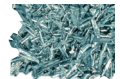
However, ACS is continuously finding good market receptivity outside the power generation field. In this fourth semester, orders were received for projects in three new applications: Ceramic Furnaces, Sintering Processes and Tungsten Particle Separation in the scope of a project with the European Spallation Source, based at CERN.

Until the 30th November ACS increased sales in 100 % to 1.3 M€, receiving orders for eight full new application markets, which will certainly help wide spreading the *Hurricane* and **ReCyclone**® systems in 2012.



Recent Relevant Projects

Ferrous Alloys



Brazil - Installation phase of a **ReCyclone**® **EH** for emission control in a major calcium silicon manufacturer in Brazil. This pilot system, to be commissioned in February 2012, will be used for emission control in a small fraction (10.000 m³/h) of the total gas flow rate of 3 existing electrical

furnaces. Once the **ReCyclone**® **EH** confirms its suitability for this application, all furnaces, summing more than 900.000 m³/h will be equipped with **ReCyclone**® modules during 2-3 years. The project is managed together with local partner **Densit**® do Brasil.

Sintering



Brazil - *Hurricane* system to reduce particulate matter (PM) emissions from a sintering process of company Tecnosulfur. The *Hurricane* system is designed for a

84.500 m³/h flow rate operating at 150 °C. Read more about Tecnosulfur in www.tecnosulfur.com.br.

Neutron Scattering Science



Sweden – ACS started a project for a special *Hurricane* system with the European Spallation Source (ESS) designed to reduce radioactive particles of Tungsten released from an object being targeted by a Neutron beam. The European Spallation Source (ESS), currently under construction, aims to be the brightest source of neutrons in the

world for scientific research. By the end of this decade it will be generating long pulses of neutrons. These will be used in parallel experiments that will foster major advances from aging and health, materials technology for sustainable and renewable energy, to experiments in quantum physics, biomaterials and nano-science. Read more in <http://ess-scandinavia.eu/>.

Ceramics



Portugal – ACS is involved in a joint project with Centro de Valorização de Resíduos (CVR) and Ceramica Amaro Macedo that involves the study for reduction of particle matter and the

impact of different fuels on global emissions after a «tunnel» type furnace. The objective for ACS is achieving lower than 20 mg/Nm³ PM emissions @ 18 % O₂ at the stack.



Recent Partnerships

Dall Energy (Sweden)



Commercial partnership with Dall Energy for the promotion of ACS **ReCyclone**® systems in that geography for emission control in biomass boilers. Dall Energy designs, engineers, demonstrates and patents new biomass technologies.

The technologies are designed to meet the demands of costumers and the legislations: fuel flexibility, low emissions, high efficiency, simple operation, low maintenance costs. Read more in <http://www.dallenergy.com/>.

Remokotly Malita (Poland)



ACS started a commercial partnership with Remokotly Malita for the promotion

of ACS **ReCyclone**® systems in Poland for emission control in biomass boilers.



Other News

ACS is in the process of certification under the norm NP EN ISO 9001:2008, expecting to become certified in end January 2012.