BIOMASS PROJECTS ARE BACK!

First semester 2018 was very positive for ACS, with its target geographical markets showing a good recovery of biomass projects after a less dynamic 2017.

In Brazil, after first orders from ICAVI and BREMER in 2016, we started our first project with boiler company DAN POWER, in order to reduce PM emissions in a 100t/h steam boiler burning forestry residues and located in Lucas do Rio Verde, Mato Grosso. Maintenance costs are expected to be reduced significantly with a low pressure drop hurricane HR system, when compared to a Bag House alternative.

In Australia and New Zealand, we got the biggest order so far in the continent for a project managed by our exclusive partner for the territory - Windsor Engineering. Two 20MWth boilers located at OneFortyOne wood panel board plant in Mount Gambier, Australia, will be controlled with ACS very high efficiency Hurricane EX cyclones.

Indonesia is recovering from less positive years concerning investment in coal and biomass boilers. With PT Basuki, ACS entered into 4 new projects, for boilers with capacities ranging from 15 to 30t/h of steam, burning coal and coffee waste.

Biomass combustion and drying recovered well elsewhere, following soaring oil prices and turning investment in this renewable energy that has became more appealing. In Portugal, new orders were secured for existing clients and partners, such as Flucal (biomass boilers), Glowood (pellet plant) and Granorte (cork waste boiler). Finally, ACS started its first project with Finnish company VALMET by supplying two inner lined hurricane SD cyclones aiming a cost-efficient, low pressure drop, pre-separation to protect an end-stage bag filter in a 109 MWth BFB boiler at CELBI (pulp & paper industry).

In France, ACS started a project study for Alpin Pellets focusing on the characterization of emissions and on the selection of the best cyclones to reduce emissions after a pellet dryer. Similar clients in the territory have already invested in ACS high efficiency cyclones, avoiding the investment in WESP's. In Quebec, Canadá, ACS secured two more projects for biomass boilers with partners KMW Energy and Ecostherma.

Finally, in the Product Recovery area, ACS obtained its first orders from French company Kereos, for the separation of dust and vitrified calcium aluminates and from Israel based Wavelength for a very high efficiency hurricane MK cyclone aiming to maximize recovery of active pharmaceutical ingredients.
More companies are trusting ACS both to reduce emissions in a cost-effective way and to recover more valuable powder. We feel honored to be part of improvements which have a positive impact on those organizations!

Pedro Ribas Araújo CEO

Latest Projects

Hurricane SD Cyclone System to pre-separate particulate matter emissions from biomass boiler, upstream a bag filter.

**OPERATING CONDITIONS**
- Particles [Eucalyptus and wood fly ashes]
- Thermal power of boiler [109MWth]
- Actual gas flow rate [422,121m³/h]
- Operating temperature [156°C]

VALMET | Figueira da Foz, Portugal | 2018
Hurricane system type “EX” and 2“SD” type pre-separators to reduce particulate matter from combustion of a mixture of green and dry sawdust and wood shavings at onefortyone mount gambier.

OPERATING CONDITIONS
Power [ 2 x 20MWth ]
Fuel [ Biomass – mixture of green and dry sawdust and wood shavings ]
Effective flow rate (wet) [ 99,000m³/h ]
Gas Temperature [ 200°C ]

One Forty One | Mt Gambier, Australia | 2018

Hurricane AT-MS cyclone system ( 1 x Ø2600mm ) for the separation of dust and fibers of vitrified calcium aluminates (65 000Nm³/h at 175°C).

Kerneos | Fos-sur-Mer, France | 2018

Hurricane HR cyclone system ( 40 x Ø1050mm ) for emission control in a biomass boiler burning eucalyptus wood ( 295,575m³/h at 170°C).

DanPower | Lucas do Rio Verde, Mato Grosso, Brasil | 2018
Hurricane SD (1 x Ø700mm) type pre-separator followed by a Hurricane RE (4 x Ø725mm) cyclone system to reduce PM from a sefako boiler equipped with an eco-palnik wood pellet burner (6,755m³/h at 170°C).

SEFAKO | Poland, Warsaw | 2018

Hurricane HR cyclone system (4 x Ø1250mm) for product recovery and also control of rejects of the saw dryer and shredded saw plate. (38246m³/h at 72°C)

Alpin Pellet | Frontenex, France | 2017

Hurricane MK cyclone system (4 x Ø1000mm) to reduce PM from a biomass boiler burning wood shaving, sawdust and wood chips (6411m³/h at 160°C)

Fontaine Lumber | Quebec, Canada | 2018

Hurricane MK cyclone system (8 x Ø800mm) to reduce PM from a biomass boiler (8478m³/h at 270°C)

Granorte | Santa Maria da Feira, Portugal | 2018