



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 20MW_{th} 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 become 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 MW_{th} 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 WESPs. In **Quebec, Canadá**, ACS secured two more projects for biomass boilers with partners [KMW Energy](#) and [Ecotherma](#).

Finally, in the **Product Recovery** area, ACS obtained its first orders from French company [Kerneos](#), 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

A handwritten signature in black ink, appearing to read 'Pedro Ribas'.

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]

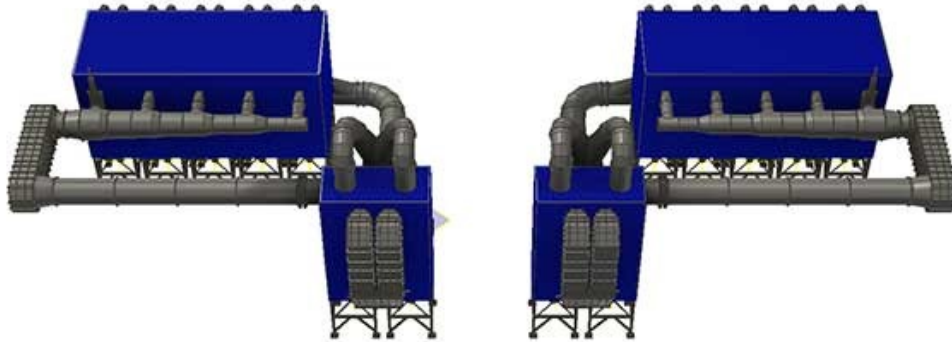
Thermal power of boiler [109MW_{th}]

Actual gas flow rate [422 121m³/h]

Operating temperature [156°C]

VALMET | Figueira da Foz, Portugal | 2018

hurricane



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 20MW_{th}]

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](#)



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