

## **Biomass: Revitalized and Powering Forward**

As oil prices remain high, biomass presents a strong alternative fuel, capitalizing on renewable organic materials to mitigate reliance on costly fossil fuels. Locally sourced and versatile, biomass can reduce energy insecurities while supporting a sustainable transition, offering a viable pathway away from oil dependency. For ACS, this quarter has shown a very good dynamic in biomass related projects which are boosting orders to record figures.

In the realm of environmental solutions, focusing on [biomass combustion](#), [Valmet](#) — a premier global provider for the pulp, paper, and energy sectors — awarded ACS the supply of a 3.5m in diameter SD cyclone, for the first stage PM separation, on the air pollution control of a 50MWth BFB biomass boiler, at [Greenvolt's](#) Mortágua power plant, in **Portugal**. This latest collaboration builds upon the successful delivery of a prior project by ACS for [Celbi](#), underscoring a continued partnership in advancing sustainable energy technology

In **Brazil**, ACS is set to provide [Biocal](#), a loyal client and collaborator, with SD-type cyclones designed to minimize the transfer of particulate matter from a rice husk biomass furnace to a grain dryer. Meanwhile, in **Indonesia**, we are slated to equip [PT Basuki](#) with Hurricane EX systems for their two 20-tonne/h palm shell boilers. Our relationship with PT Basuki has been fortified through the successful completion of over 40 projects. We deeply appreciate the confidence these partners have in our capabilities, and we eagerly anticipate furthering our collective efforts together.

Regarding [biomass drying](#), ACS has achieved a milestone by securing our most significant order to date from [Seripanneux](#) in Saint-Vincent-de-Tyrosse, **France**. The notable French producer of particle boards, slabs, and decorative melamine panels will receive a comprehensive solution from ACS. We will deliver a turnkey high-efficiency cyclone system, inclusive of all peripherals and installation services. This system is engineered to diminish the current emissions of their rotary dryer from 350mg/Nm<sup>3</sup> to below 50mg/Nm<sup>3</sup>, thus obviating the need for investment in a Wet Electrostatic Precipitator (WESP).

In the domain of [powder processing and recovery](#), ACS is undertaking a scale-up project in the **USA** with biopharmaceutical innovator [Mankind Corporation](#), aimed at optimizing the recovery yield of active pharmaceutical ingredients post spray drying.

We're also making strides in **Colombia**, having confirmed an order with [Sucroal](#) for a Mycelium separation system after a flash dryer, promising an impressive efficiency of over 99.5%. Sucroal, a leader in chemical and biotechnological raw material solutions, will benefit from this enhanced separation capacity.

ACS has begun a first project for Japanese company [Okawara](#) for the supply of a set of 5 cyclones to be installed in India for a major world player. It is a sterilization line built for psyllium husk, used to support weight loss, controlling blood sugar and improving digestion. This cements the growing trend in the nutraceutical industry we have been supporting through our high end separators.

At the end of the month, our senior engineer, Marta Loureiro, will host a new [free live webinar](#) focused on **innovative, high-efficiency cyclones to significantly increase the yield of high-value powders in pharmaceutical spray drying processes**. Please consider joining us as we embark on a journey through our technology and applications in the pharma industry!

All the best,



Pedro Ribas Araújo CEO

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

## Ongoing Projects



**Valmet** ordered a Hurricane Cyclone system ( SD<sub>23</sub> x ø3500mm ) to pre-separate particulate matter emissions from 50MWth BFB biomass boiler, upstream hydrated lime injection and a bag filter.

[Valmet | Mortágua, Portugal | 2023](#)



**Seripanneaux** ordered a Hurricane Cyclone system ( 10 HR<sub>23</sub> x ø1550mm ) for emission control after two process cyclones from the sawdust dryer.

[Seripanneaux | Saint-Vincent-de-Tyrosse, France | 2023](#)



**Hovione** ordered a Hurricane Cyclone system ( HR<sub>23</sub> x ø360mm ) for product recovery of APIs from a spray dryer.

[Hovione | Lisboa, Portugal | 2023](#)

# mannkind

**Mannkind** ordered a Hurricane Cyclone system ( KX<sub>23</sub> x ø290mm ) to recover active pharmaceutical powders.

[Mannkind | Danbury, USA | 2023](#)



**Sucroal** ordered a Hurricane Cyclone system ( 1 HR<sub>23</sub> x ø1450mm ) to separate particulate of mycellium after flash dryer.

[Sucroal | Buenaventura, Colombia | 2023](#)

## BASUKI

Our partner **BASUKI** ordered several **Hurricane Cyclone systems** from ACS for emission control in Biomass and Coal Boilers.

[Basuki | Indonesia | 2023](#)

### Upcoming Events

30 NOV | 2 PM (GMT) 9 AM (GMT-04)

*Free webinar*

## Enhancing High-Value Pharmaceutical Powder Recovery in Spray Drying with State-of-the-Art Cyclone Technology



**Marta Loureiro**  
Team Principal

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