



Compact Plus® drying installation

The Compact Plus drying installation is characterized by a few unique selling points which makes it the 'best-in-class' drying installation available on the market.

Dry solids measurement – higher drying capacity

The Compact Plus drying installation is steered by the dry solids measurement unit. The device optimizes the drying capacity.



As soon as the dry solids measurement unit says that the end-product has been dried enough, the machine moves on and the dried product is being blown away. If the device says that the desired level of dry solids has not been reached yet, the drying belts stop rotating for another few minutes in order to let the product dry further. When the dry solids measurement device says that the desired level has been reached, the drying belts start rotating again. So, the installation knows when the product has been dried enough. This advantage leads to a 10-20% increase of the drying capacity.

With other drying installations the drying capacity is not used optimally because of an inefficient drying process. These machines are steered in most cases on time or temperature difference. During commissioning they set the steering and automation on a certain drying time per batch. In order to prevent that wet material is coming

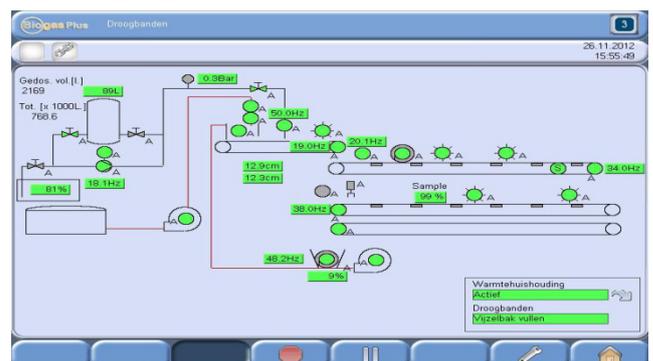
of the drying installation, this time is set long enough. Thus, the substrate is already dry enough but the machine is still waiting because of this rigged setting. This reduces the drying capacity significantly. In case the time is set not long enough, there is a potential danger of a spontaneous fire in the storage facility.

The dry solids measurement device is also very useful when the available amount of heat is changing over time. The Compact Plus drying installation adjusts itself where other type of installations get problems and need to be re-programmed.

This device makes it also possible to adjust the desired level of dry solids in the end-product.

Steering & automation – optimizing the use of heat

One of the characteristics of the Compact Plus drying installation is the flexible and state-of-art steering and automation. The steering and automation system is split up into two sub-systems. One for the drying installation itself and one for the heat and ventilation system. In case of an error on the drying installation, the heat and ventilation system remains in operation. In case of an error in the heat and ventilation system, the drying installation stops.



The steering and automation system ensures that all the available spare heat of the biogas installation is used. As soon as more heat is available from the GenSet, the system automatically steers more warm water towards the drying installation. As soon as for instance other applications in the total heat system demand more heat (e.g. the digesters need more heat), the system adjusts itself the other way round. The water that returns at the GenSet has to have a temperature which is as high as possible but which does not let the GenSet turn on his emergency coolers. No heat is wasted.

Other advantages of the steering and automation system:

- Easy to use touchscreen
- Friendly human interface
- Frequency controlled
- Flexibility

Modular drying belt – less down time, less maintenance

The Compact Plus drying installations are equipped with modular plastic (polypropylene) drying belts. Polypropylene is resistant to fatigue and it is rugged and unusually resistant to many chemical solvents, bases and acids.



During the life-time of the drying installation, there is a real chance that a larger item (e.g. a rock, a screw driver, a piece of wood or metal) is accidentally put onto the drying belt which damages the belt. Just imagine what would happen with a non-modular belt...

The Compact Plus drying installation is equipped with a sensor which detects whether or not there is a breakage in the drying belt. In case of a breakage it is very easy – and also not costly – to repair the belt. You just take out the broken modular pieces and replace them by new ones. This can be done by the operator himself.

The modular drying belt is available in several open areas and structures. Depending on the type of materials which will be dried a mesh type is selected.

Robust construction – longer lifetime, less maintenance

In most cases the Compact Plus drying installation has to operate in a corrosive environment (e.g. ammoniac). A corrosive environment demands a right choice of materials used for the installation.

The drying belts are made of corrosion resistant polypropylene. The frame of the machine itself is completely made of high quality stainless steel. The choice of materials ensures a longer lifetime. The robust construction ensures less maintenance.

Flexibility – different substrates can be dried

The products which you want to dry today can be different from those you want to dry tomorrow. Flexibility in the type of products you can dry is there for a big plus. The Compact Plus drying installation can be used for drying all kinds of different (semi) solid and or liquid products.

Depending on your specific situation and demands we can make the installation capable of drying less or more different products.



A solution not a product – customized solution

Biogas Plus is not only interested in selling a single product. We want to sell the best solution for the customer's demands. We want a sustainable partnership with our clients. Biogas Plus advises its customers not only in the field of the technical capabilities of the installation (What is the drying capacity? Which products can we dry?) but also about other relevant issues like:

- Energy balance,
- N, P, K, balance,
- Logistical issues,
- Environmental issues,
- Total cost of ownership.

We always discuss all relevant aspects with the customer in order to offer the right solution for the problem.

And...in case we don't have a solution, we will say so.

Service & maintenance

Good service and preventive maintenance ensures a maximum up-time of the installation. Biogas Plus offers a service and maintenance contract to its customers. In order to ensure a short reaction time and effective communication, we always work together with a local partner.

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