

RotaCut[®]: No more blockages in the recirculation line

Case Study - Agrinord Srl



Problem

Frequent blockages and clogging in the recirculation line

Solution

Retrofitting of the RotaCut RC 5000pro

The customer and the problem

Agrinord Srl designed and built in 2010 a biological treatment plant located in Isola della Scala (VR) for the production of soil improvers of various compositions. The plant treats 76,600 t / year of waste divided into FORSU, vegetable residues, waste biomass and civil and agro-industrial sludge. Through the combustion of biogas generated by the anaerobic fermentation of organic waste it produces electricity that satisfies the production energy needs and gives the plus to national grid.

The FORSU and a small part of fruit and vegetable waste entering the plant, are previously treated by a separator before being placed in two storage tanks of 50mc each aerated from below. The material is continuously recirculated from one tank to the other through a centrifugal pump (with a flow rate of 20-30 mc/h) followed by the RotaCut RC5000pro by Vogelsang, both machines have been in operation 24 hours a day for about 10 years.

Having reached an adequate homogenization, a peristaltic pump transfers the mixture into recirculation circuit of the anaerobic digester, just before the heat exchanger, where there are two dedicated centrifugal pumps. The presence of the solid component in the treated material caused frequent blockages and clogging in the recirculation line. Before installing the RC5000pro, the operator had to weekly clean the entire recirculation line of the digester (DN) because the presence of coarse material and also of vegetable and inert fibers caused continuous obstructions.



Agrinord in Italy

The solution

After the installation of the macerator, the problem related to blocks has been resolved. This is because the suspended solids are removed from the RC by gravitation while the fibrous components are finely ground.

Thanks to the QuickService concept, the operator independently performs routine maintenance with simple and quick operations. The plant has been working continuously for 10 years; plant shutdowns were no longer necessary to remove cloggings from the line and this also reduced the costs related to maintenance and cleaning, in addition to the economic losses resulting from the interruption of the process.



RotaCut RC 5000pro on site

Advantages of the RotaCut®

- Reliable maceration of suspended solid material
- Ordinary maintenance carried out independently by the operator
- Reduced maintenance costs

Benefits for the user

- Elimination of continuous blockages of pumping systems
- Elimination of system shutdowns costs

Mentioned Vogelsang products

[RotaCut: Wet cutter with heavy material separator](#)



Mentioned Vogelsang products

[RotaCut: The wet cutter for biogas applications](#)



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