

Filtration Group significantly improve the filtration of edible organic oil at Terres du Sud

To improve the efficiency and production of organic oil extraction at Terres du Sud, Filtration Group worked closely with the customer to design replacement parts that would deliver optimum results to their existing filtration system.

Terres du Sud – Versis Filter System

IMPROVING THE EFFICIENCY AND PRODUCTION OF ORGANIC OIL EXTRACTION WITH THE VERSIS VERTICAL PRESSURE LEAF FILTER.

BACKGROUND

Terres du Sud is an animal nutrition manufacturing production plant, located in Clairac, France. Since the merger of five agricultural cooperatives in 1992, Terres du Sud has grown exponentially to incorporate six core businesses into their model, including cereals, poultry, agricultural supplies & equipment, cattle & meat, wine & juices and distribution to the general public. For the production of 1,500 tonnes of rapeseed, wheat and sunflower oils per year, Terres du Sud rely on their existing filtration system, to maximise extraction and production of their edible organic oil.



THE CHALLENGE

Filtration Group had not been a supplier of Terres du Sud in the past and were pleased to be given the opportunity to assist the customer's filtration requirements.

The system presently installed at Terres du Sud had worked efficiently for many years but there were concerns that the two vertical pressure leaf filters were not working efficiently due mainly to the existing vibration system not cleaning the leaves completely. This resulted in a substantial amount of cake discharge accumulating within the filtration system leading to blockages, which in turn required manual cleaning. The maintenance team at Terres du Sud had to open the filters to clear and clean the leaves by hand from cycle to cycle. As a result of their day to day busy schedule, the maintenance team were not always able to immediately attend to the problem, leading to filter cake blockages, which in turn had a negative effect on the system as it decreased the filtration flow and could in time cause damage the filter leaves due to excessive cake build-up.

The customer, although pleased with their long-standing system, was concerned that a replacement of the existing filter with a new filter could lead to a similar problem further down the line. So, Terres du Sud sought out the Filtration Group to enquire if it was possible to adapt and implement our vibrating vertical pressure leaf filter to their existing filter specifications.

And, when it came to modifications, it was essential only the minimum amount of alterations were made - helping to safeguard against difficulty in sourcing standard spare parts should the customer need them in the future.

THE SOLUTION

Filtration Group's specialists worked closely with the customer, making several visits to their site in the South of France to take measurements of their existing filter system and vessel to ensure a perfect replication of the new parts.

Filtration Group's team returned to the customer site and replaced the vibrator support and the accompanying vibrator in the existing filter with stainless steel filter leaves to improve filter leaf efficiency. The counter rod and guiding sleeve were removed and retrofitted using the Versis PLF existing vibrating system design. Once Filtration Group's service team had made the necessary modifications and replaced the customers' existing vibrating filter with the Versis Vertical Pressure Leaf Filter, the plant could initiate to operate once more.

THE RESULTS

Once Filtration Group's vibrating system was fully installed the customer, Terres du Sud, noticed the transmission of the vibrations in our filter system broke down the cake discharge more effectively - saving them from having to open the filters and clean the leaves manually from cycle to cycle. Mr. David Guerin, Maintenance manager commented: 'Filtration Group's vibrating system used on the Versis Vertical Pressure Leaf Filter which has been adapted to our existing vessel has had a significantly positive impact on our production and our total cost of ownership'.

OUR PRODUCT

THE VERSIS VERTICAL PRESSURE LEAF FILTER SYSTEM IS ABLE TO CUT PROCESSING TIME AND IMPROVE EFFICIENCY IN THE EXTRACTION OF ORGANIC OIL FOR OUR CUSTOMERS DUE TO THE INCLUSION OF:

- Double-sided, five-layered filter leaves made from stainless steel.
- Individual filter leaf mounting on the central manifold to allow easy removal of any or all filter leaves for maintenance and cleaning.
- Low-maintenance pressure leaf filter design, resulting in an economical filtration system.
- Pneumatic vibrator to remove cake discharge through a large butterfly valve.
- Short regeneration times between filtration cycles.



Versis Vertical Pressure Leaf System installed at Terres du Sud.