



A cutting-edge poultry processing and packing line.

Did you know that poultry processing plants use vacuum systems to convey by-products and waste?



Southwest France is known throughout the world for its many poultry producers. Whether organic, certified or classic, its chickens, ducks, geese and turkeys delight gourmets looking for terroir authenticity all year round. Les Fermiers du Sud-Ouest is a leading producer in the French market advocating values of guaranteed origin and high-quality as well as a healthy production cycle that respects both animals and the environment. In 2021,

one of its production units, Les Fermiers du Gers, acquired a new facility for the slaughtering, processing and packaging high-yield poultry. This new building required specific new installations for the extraction and treatment of production waste. The company called upon BP TECH, that specializes in turnkey solutions for poultry processing, for the design and commissioning of its new production lines.

The requirements

The poultry company already had a slaughtering and processing plant nearby. The company wanted to rebuild an entirely new unit for increased productivity. At the old site, waste was conveyed using liquid ring pumps and blowers. These technologies are suitable for conveying waste, but use a lot of water and electricity. For its new site, efficiency is the watchword. Les Fermiers du Gers, BP TECH and



Leybold worked together to design and commission an innovative centralized vacuum waste disposal system. Leybold provided the appropriate vacuum solution to the BP Tech integrator. BP Tech then designed and installed the entire conveyor system.

The pumping solution

The **CLAWVAC** System CP 1200 is the optimal solution for this application. It includes four **CLAWVAC** 300 m³/h claw pumps, a controller, electrical components, etc. It's a turnkey solution that's easy to install and ready to use immediately upon delivery. Based on **CLAWVAC** dry-claw pump technology, this system is specifically adapted to very specific requirements, which need to prevent a possible contamination of the pump through particles or process gases. Inside, the pumps are easily accessible for maintenance and

cleaning. In order to limit the quantity of production waste entering the pump, two parallel liquid separators/particle filters are installed in the suction line. Production waste carried by the suction line is thus easily retained, and the flow rate can be guaranteed.

One of the other key features of the **CLAWVAC** System CP 1200i is that it works in conjunction with variable speed drive (VSD) and cascade switching circuits. It generates vacuum on demand according to the production requirements and rates, while being energy efficient – another of the customer's prerequisites. Since the completed system is only in high demand at specific times of the year, the production line must be able to cope with variations in production rates and operate at a reduced rate when necessary. Energy savings are instantly mea-

asurable. The system is self-regulating, using two, three or four pumps, meaning you only pay for what you actually use at any given time.

Finally, another advantage of the CP 1200i system is that, unlike liquid ring pumps, it doesn't require water to operate, significantly reducing costs for fresh water and sewage treatment.

User experience

The new production line ticks all the boxes in terms of ease of use, efficiency and energy savings. It was able to be quickly installed and excels in its primary function as an on-demand vacuum plant. Thanks to upstream filtration, the CP 1200i is well protected and can operate maintenance-free for over a year. The user only needs to check the filters once a week and the system requires only the lowest maintenance.

The opportunity is there now for BP Tech and Leybold to replicate the installation at other agri-food sites.



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