

Case Study

Doubling Throughput: A Custom Belt Filter Press Solution for Growing Dewatering Demands

Application:

- Liquid Waste Hauler Processing Facility
- Primarily Grease Trap Waste and Other Liquid Waste

Objective:

To evaluate and implement a customized Belt Filter Press solution that addresses the operational challenges of a growing facility struggling to meet dewatering demands. The existing 1.2M belt press and rotary fan press are underperforming—unable to handle increasing volumes, prone to breakdowns, and inefficient with grit-heavy material. With limited space and overworked plant operators, the facility urgently needs a more reliable, space-conscious replacement for the rotary fan press to efficiently process 80,000–100,000 gallons within a 10–12 hour shift.

Solution:

Sebright Products conducted a comprehensive site visit and engineered a custom skid-mounted dewatering package tailored to maximize efficiency within the plant's limited space. A 1.7-meter skid-mounted Belt Filter Press, paired with a filtrate pumping system, was custom-built to replace the unreliable rotary fan press. The fully integrated system was designed, delivered, and commissioned within six weeks of order placement. Sebright also provided on-site training and process support to ensure a smooth transition and long-term operational success for the plant's operators.

Results:

- The installation of Sebright Products' 1.7-meter Belt Filter Press significantly improved the plant's dewatering performance. Compared to the previous equipment, the new system delivered:
- Throughput Increase:
- Old 48" Rotary Fan Press: 50–80 GPM
- Competitor's 1.2M Belt Press: 65–110 GPM
- Sebright 1.7M Belt Filter Press: 170–225 GPM
- Improved Cake Solids:
- Fan Press & Competitor's Belt Press: 40–50% solids
- Sebright Belt Filter Press: 50–60% solids
- These results reflect more than double the throughput and enhanced solids capture, reducing disposal costs and easing the operational burden on plant staff. The upgraded system allowed the facility to meet processing demands within a standard 10–12 hour shift while improving reliability and efficiency.

Conclusion:

The custom 1.7-meter Belt Filter Press from Sebright Products outperformed expectations, delivering 2.5 times the flow of the existing 1.2-meter press in side-by-side operation. The system enabled the facility to consistently meet daily production targets within a 10–12 hour shift—without the need for additional equipment. Operators reported significantly higher throughput and improved cake solids, even with varying sludge conditions. The press also featured more user-friendly controls, reducing operator strain and simplifying daily operation. Sebright Products not only delivered a high-performance solution but also provided exceptional support, exceeding the owner's expectations in both equipment and service.



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