



Circular Economy

Custom Washing and Separation Line for Challenging Spaces

A globally active plastics recycling company and operator of Europe's largest recycling centre for plastic films aimed to expand efficiency and capacity with a state-of-the-art washing and separation line. However, the severely limited space and complex structural conditions made implementation particularly challenging. METZEN developed a solution precisely integrated into the existing infrastructure. Through detailed planning, innovative technology, and close collaboration with all project stakeholders, METZEN delivered a plant that ensures maximum efficiency and cost-effectiveness.

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Highlights

- **Challenging Spaces:** Integration into a curved-roof hall with limited dimensions (90 x 20 x 9 m).
- **Precise Planning:** 25 adjustments to the layout plan to optimise the integration of 19 components.
- **High Capacity:** Processing 3 tonnes of film per hour across two lines.
- **Creative Solutions:** Wave-shaped line layout spanning three existing halls.

Challenge

The project required integrating a high-performance washing and separation line into an existing production environment under complex conditions.

- **Spatial Limitations:** Limited floor area and height, plus architectural segmentation.
- **Logistical Coordination:** Cross-departmental collaboration with suppliers and project partners.
- **Tight Timeline:** Completion within 12 months despite high technical complexity.

Solution

METZEN developed a precisely coordinated overall solution, impressing through extreme attention to detail and innovative in-house components. The plant was designed in record time to integrate seamlessly despite architectural constraints. With a customised concept and cross-departmental cooperation, the team was able to meet the client's economic objectives with pinpoint accuracy.

Result

The washing and separation line achieves high efficiency with maximum space utilisation and operational reliability. Despite the challenges of the building layout, the plant was delivered on schedule and meets all capacity and quality requirements. Collaboration with Cedo Recycling resulted in an innovative solution that is both sustainable and future-proof.

Project Conclusion

The successful implementation demonstrates how technical innovation, precise planning, and collaborative partnership can deliver outstanding results even under the most challenging conditions. METZEN developed a tailored solution that integrates seamlessly into existing infrastructure while meeting the highest standards of efficiency, sustainability, and future-readiness. This project proves that pioneering plant concepts can be realised even in spatially and organisationally demanding environments – with the right partner by your side.

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