



Materials

Primary Crushers: Standardised, High-Performance, and Sustainable

With GERWIN primary crushers, a major milestone has been achieved: the plants feature a high degree of standardisation. This allows short delivery times while maintaining consistently top quality—a clear advantage for modern quarrying and processing operations.

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Project Overview

Two identical plants were manufactured in parallel and then installed consecutively. The first plant has been successfully operating since November and demonstrates its performance under demanding conditions.

The design combines a robust on-site concrete back wall and a massive base plate with precise, durable steel construction from GERWIN. The primary crushers are adaptable to different materials—from hard rock to limestone, as shown by the plants already implemented.

With a bunker volume of 110 m³ and throughput of up to 500 tonnes per hour, the plant offers high performance reserves. Powerful components, such as the push feeder, a roller screen for pre-screening fines, and the jaw crusher at the core, ensure reliable crushing to a particle size of approximately 0–250 mm.

A key advantage is the modular design, enabling completion within a few months while ensuring precisely coordinated integration of electrical and control systems. Energy consumption is optimised, contributing to significant CO₂ savings during operation.

This series-ready solution sets new benchmarks for GERWIN—technically, economically, and ecologically—and lays the foundation for efficient use of modular primary crushers in quarries across Europe and beyond.

Challenge

A primary crusher was required that combined high throughput, robust construction, and flexible material handling with short delivery times. The plant also needed to be economical, energy-efficient, and modular to allow fast implementation and easy integration into existing quarry infrastructure.

Solution Standardisation meets robust engineering

GERWIN developed a modular primary crusher with a high level of standardisation. The combination of massive concrete construction, precise steelwork, and high-performance core components ensures operational reliability, flexibility in material processing, and rapid realisation. Coordinated integration of electrical and control systems enables efficient and reliable operation.

Result

A primary crusher that combines performance, economic efficiency, and sustainability. Short delivery times, high throughput, and reduced emissions allow efficient deployment in quarries and provide long-term investment security.

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Highlights

- **Series-ready:** High degree of standardisation enables short delivery times with consistent quality
- **High performance:** Up to 500 t/h throughput with 110 m³ bunker volume
- **Material adaptability:** Suitable for hard rock and limestone
- **Modular design:** Fast implementation and precise integration of electrical and control systems
- **Sustainable operation:** Optimised energy consumption for reduced CO₂ emissions

Contact

Adrian Hense

Senior Engineer Materials

a.hense@gerwin-silotechnik.de

M + 49 152 37 61 62 17

GERWIN Silotechnik

a METZEN brand

Auf dem Tigge 35

59269 Beckum