



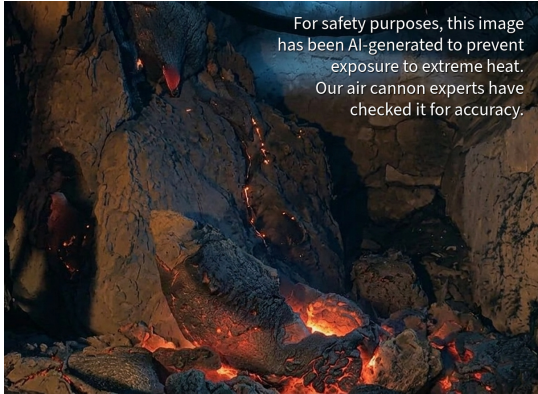
PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Typhoon Air Cannon

INDUSTRY: Cement

LOCATION: Leading cement producer, Northern Turkey

TITLE: Typhoon Air Cannon Prevents Blockages & Boosts Flow in Clinker Cooler



Modern cement plants can still suffer from build-ups and blockages throughout the process.

PROBLEM

One of Turkey's leading cement producers operates a modern plant in the north with an annual cement production capacity of nearly 1.8 million tonnes. A "snowman" formation of clinker was occurring in the cooler, disrupting the production process. These build-ups caused material blockages on the cooler's fixed plate, requiring monthly stoppages for manual cleaning by maintenance teams and excess energy from frequent restarts. Each stoppage resulted in an average of 4–5 hours of production loss, reducing the daily clinker volumes by 12%. These losses increased energy and labor costs and negatively affected the overall efficiency of the plant.

SOLUTION

Following on-site inspections conducted by the Martin Engineering Turkey technical team, a custom-designed air cannon system suitable for the fixed plate and cushion concrete upper areas of the clinker cooler was developed. Within this scope, a total of 11 Martin® Typhoon Air Cannons were installed. Martin® Typhoon systems effectively eliminate material build-up through high-pressure, directed air blasts. They ensure uninterrupted production by eliminating the need for manual cleaning, while also reducing maintenance and energy costs. For more information about the product visit: www.martin-eng.co.uk/content/product/1824/typhoon-air-cannon



Typhoons deliver powerful, precisely timed blasts to prevent blockages, boost flow and reduce downtime

RESULT

After installation, "snowman" formation in the clinker cooler area was completely eliminated. Production capacity returned to optimum volumes and manual cleaning and maintenance time were eliminated. Occupational safety and production continuity improved significantly and a major revenue gain of approximately 9.4 million TL (>\$200,000) was achieved. That meant that the return on investment (ROI) of the new air cannon system was realized in just two months. The significant operational and economic benefits by ensuring production continuity is great evidence of Martin Engineering's vision to deliver cleaner, safer more efficient handling.



The return on investment (ROI) of the new 11-air cannon system was realized in just two months.

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