PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Typhoon Air Cannon

INDUSTRY: Steel

LOCATION: India

TITLE: Typhoon Air Cannons eliminated blockages in concrete coal bunker

Continued coal buildup in bunker due to sticky material and ineffective blasters from another supplier

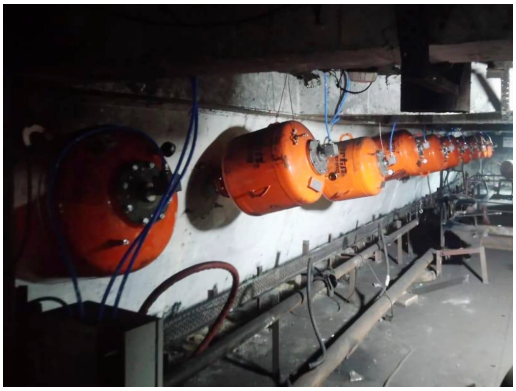
PROBLEM

A major steel plant in western India was experiencing material blockages in a Y-shaped RCC (concrete) coal bunker at the coke oven battery area. Although air blasters from another supplier were already in place, they failed to dislodge sticky and moist coal that was adhering to the bunker walls. Frequent choking disrupted operations, caused downtime, and required manual cleaning. These issues affected productivity and posed safety risks to the workforce. The plant needed a more effective and reliable solution to restore consistent flow of coal and reduce the dependency on manual intervention.

Martin® Typhoon Air Cannons were installed on bunker - restoring material flow and simplifying maintenance

SOLUTION

To overcome the limitations of the existing setup, Martin Engineering proposed the installation of Martin® 150-liter Typhoon Air Cannons. These cannons deliver a peak-force, high-volume air blast capable of efficiently dislodging stubborn coal buildups. Designed with a centrally located valve, the Typhoon Air Cannon allows easy maintenance and optimized performance for bunker applications. Initially, four air cannons were installed on a trial basis, targeting key points in the bulker. After successful results, the solution was expanded - replacing all other blasters from the previous supplier.



Typhoon Air Cannons enabled efficient coal flow, improving productivity and reducing maintenance costs

RESULT

With the Typhoon Air Cannons in place, the coal flow issue was resolved. The bunker now operates without manual intervention, significantly reducing downtime and maintenance. The plant achieved smoother operations and enhanced safety. Over 16 months of trouble-free performance built customer confidence, resulting in multiple repeat orders. The Typhoon cannons proved more effective than the previous solution, supporting continuous flow even with sticky, high-moisture coal. The customer is satisfied and continues to expand the use of Martin's proven Air Cannon technology.

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