AIR-CURE ROTARY CAR DUMPER
DUST COLLECTION SYSTEMS

B.A.C. Technology for dustless railroad car unloading.

Advantages to Air-Cure’s Dust Collection Systems

• Provides dust free Rotary unloading of railroad cars - no visible emissions
• Eliminates dust above track level - avoiding entrainment in wind currents
• Allows float dust treatment or disposal prior to stackout
• Removes dust from dumper building - collector is located outdoors
• No consumable chemical which may corrode or affect equipment & building
• All weather reliable operation
• Simple operation & maintenance
• Excellent operator visibility into pit
• Reduces clean-up costs
• Proven experience

Air-Cure Rotary Car Dump system is an exclusive (patent pending) package of dust baffles and curtains which are integrated onto the dumper barrel. These baffles provide a means of simultaneously increasing dust retention in the pit, directing incoming capture air and eventually moving captured dust to the evacuation hoods. All happening in seconds to coincide with the fastest dump cycles. The end result is a “clean dump” by maintaining the dust below the dumper rail level, and lower average dust concentrations throughout, for a safer dump.

This is accomplished year-around in all weather with the renown Air-Cure system reliability. From baffles and hoods to fan stack; from PLC to dust transport; all engineered and manufactured by the leading supplier of PRB coal dust collection equipment and systems, for optimum performance in the application.

The Air-Cure design has evolved from numerous installations where the need has arisen because of the greater dust concentration produced by PRB coal. The greater haul distances, and higher propensity of spontaneous combustion, especially with carry-back, have resulted in a need for the best dust control at the railroad car dumper. The Air-Cure system promotes safety with greater exhaust volumes, location of the filter outside of the dumper building, and having fire detection and suppression meeting NFPA guidelines.
A big advantage of dust collection at the dumper is the significant quantity of fine float dust that is captured before going to stack-out. The opportunity is to not only remove the dust from the coal stream, but once the dust is collected it can be treated before return to the coal stream or disposed of by conveying directly into the combustion process. This reduces or eliminates re-entrainment of the same dust in subsequent operations; an important feature.

The system is also simple. One solenoid, and five motors are used for all operations including pulse cleaning. No high pressure compressed air or air dryers are required. The simple Air-Cure RF filter is the heart of the system with filter bag life exceeding five years or longer.*

Another advantage of Air-Cure’s extensive experience is this system has been applied and tested on most brands and models of rotary dumpers.

Air-Cure Inc. and its predecessors have specialized in dust collection systems and equipment for more than sixty years. Air-Cure continues to out-perform competitors in filtration capabilities, filter systems, project integration, quality control, and customer satisfaction making us a leader in dust control and process filtration systems.

* Typical life may vary. Results dependent on actual application.