

# PROBLEM SOLVER

## DUST FILTER VALVES MAKE DRILL RIGS SAFER



**Problem:** Surface top hammer drill rigs can only operate reliably if the dust they generate is removed from the path of the drill to prevent the drill string from jamming.

However, the dust cannot simply be exhausted, as respirable particles present a significant health and safety hazard. The customer solves the loose dust problem by integrating compressors and patented jet pulse dust collectors directly on their surface hammer drill rigs.

Dust-laden air flows into sock-shaped filter bags, where the dust collects, or “cakes”, on the outside. Timed blasts of compressed air shake the cake into the collector so it can be discarded safely. Frequent jet pulse cleaning of the filter bag requires fast acting, long lasting valves to control the air pulse.

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**Solution:** **IMI Buschjost valves** have helped the customer to keep their dust collectors operating at peak efficiency, they open in milliseconds so air pressure builds quickly to deliver an intense burst that cleans the filter bag more effectively. It is operated by a unique one-piece diaphragm rather than a spring, which all combines to reduce energy consumption.

In addition the valves are explosion-proof up to hazardous area 1/21 and perform consistently across a wide temperature range (-40°C to +140°C)

The customer's dust collection system can be used anywhere in the world to protect workers from dust regardless of temperature. Using the same valves across the complete range of blast hole drill rigs simplifies ordering specifications.

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