

Case Story

Problem:

Atlas Copco AVOS in Orebro manufactures rock drills for working both over and under ground. Most of their production orders require special adaptation. Customers expect a great deal of their drill rigs, and outside visitors come to the 20,000 m factory floor practically on a daily basis.

Metal filings and waste fluids from the workshop machines are cleared away using compressed air, and also manually with a brush. Compressed-air cleaning does remove the metal chips and other residue, but it actually just moves it all to another place on the premises, where it remains until someone get rid of it permanently. Moreover, there is a risk of eye injury when metal dust is swirling around in the air. Some of the fluids removed by the compressed air evaporate into mist, which is a health hazard to any machine operator who inhales it. Compressed-air cleaning is also a very loud process, and the method does cause a rather high amount of wear on the machinery.

Solution:

Working together with Atlas Copco AVOS, we drew up guidelines for a solution based on high-vacuum extraction with the objective of improving the working environment, rendering the workshop cleaner, and reducing wear on the machinery.

The treatment began with a small-scale test. A high vacuum unit was placed adjacent to the workshop. Several pre-separators, each one placed over a small container, are connected to the vacuum unit via a system. A hose and nozzle were then extended to each workplace, which effectively took care of metal chips and fluids.



Result:

Bengt Ostas, responsible for improvements to the production process at Atlas Copco AVOS, noted three immediate advantages of the high vacuum system. 1) A cleaner working environment for everyone working on the factory floor. 2) A cleaner and more welcome place for visitors. 3) Fewer repairs to machinery. Bengt Ostas concludes, “...another advantage of the system: it can easily be added to and adapted if circumstances change”.