Nitrocision™
The world leader in liquid nitrogen-based cutting and cleaning technology.

Case Study

Newmont Mining Company Partners with Nitrocision

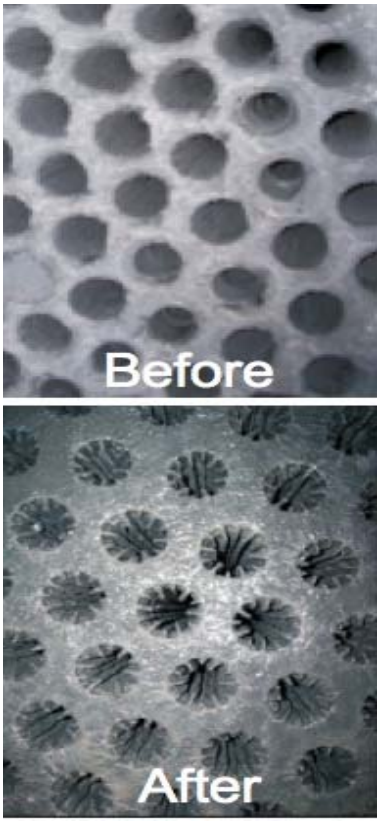
Leading gold producer improves employee safety and the bottom line with liquid nitrogen cleaning technology

Heat exchangers are commonly used in the mining industry. They are built for efficient transfer of heat from one substance to another. The most common example of a heat exchanger is the radiator in an automobile, in which the hot radiator fluid is cooled by the flow of air over the radiator surface.

Cleaning the long narrow tubes in a heat exchanger can be an arduous and hazardous process. Historically, Newmont employee — confined to a small space for extended periods of time — hand drilled the tubes in order to clean them for future use. This process posed several problems for Newmont.

First, extended periods of time in cramped spaces created health and safety issues for its employees. Second, the heat exchangers were inoperable during the one month/exchanger cleaning process, resulting in productivity losses. Third, hand drilling would often damage the cooling fins in each tube. And fourth, the drilling approach cost Newmont $450,000 in lost revenue for each day that an exchanger was off-line. As a result of these drawbacks, Newmont Mining Corporation began investigating other processes. They were referred to Nitrocision by one of their corporate partners.

Using Nitrocision's NitroJet, Newmont employees were able to reduce the time required to clean the heat exchangers from 14 days to only 2 days. NitroJet's precise jet technology enabled employees to rapidly and thoroughly clean the exchanger tubes, and, because the liquid nitrogen evaporates into the atmosphere, the NitroJet eliminated the secondary waste stream traditional cleaning methods had produced.



Since Newmont first used the NitroJet in 2004, the company has contracted with Nitrocision every year to complete the exchanger cleaning project during a planned two-week maintenance outage period. By using the Nitrojet, Newmont has saved nearly $6 million annually due to reduced down time.

For more information on the Nitrojet technology, visit our webpage at www.nitrocision.com.

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