Dust Collection: Health & Production

Dust levels in coal mines as well as other industries raise serious concerns that deal with health, production and legal issues.

One of the main concerns in the mining industry today is silica and the prevention of silicosis. A U.S. Department of Labor NIOSH (National Institute for Occupational Safety and Health) publication called “A Guide to Working Safely With Silica; If It’s Silica, It’s Not Just Dust” reports that each year more than 250 American workers die with silicosis. More than 1 million U.S. workers are exposed to crystalline silica. There is no cure for the disease, but it is 100 percent preventable if employers, workers and health professionals work together to reduce exposures.

Silicosis, as defined by NIOSH, is “a disabling, nonreversible disease caused by overexposure to respirable crystalline silica. Silica is the second most common mineral in the earth’s crust and is a major component of sand, rock and mineral ores.”

Overexposure to silica found in dust can cause scar tissue to form in the lungs, reducing the lungs ability to extract oxygen from the air we breath.

One of the ways NIOSH uses the use of engineering controls that are properly maintained. Properly maintained controls can also increase the level of production. For example, a roof bolting machine can’t drill any faster than the dust can be removed. Recent developments by drill bit manufacturers have produced bits that increased dust collection efficiency during drilling. To take advantage of these bits, J. H. Fletcher & Co. offers high performance blowers. The combination of these improved bits and blowers increases the efficiency of dust collection and therefore decreases the amount of dust (and silica) at the hole.

2504 DVJ High Performance Blower
Dust Continued from page 1

Fletcher also has, as an available option, remote dump dust collection systems. The operator can empty the dust from the dust collector from a remote location such as the tram deck or drilling station. This removes the operator from the immediate area where the dust is deposited.

Pre-Collectors are another feature that remove the operator from the dumping location and increases the performance of the dust system. After drilling and when the foot is raised, the pre-collector will open and dump the larger cuttings keeping them from going on to the filter where they could possibly clog the filter.

Other options are available such as socks on the pre-collectors that extend the discharge tube to the ground. This keeps dust from getting stirred up when it contacts the mine floor. Dust collection bags can also be attached to contain drill cuttings. Additional measures to reduce dust and increase performance can be discussed with your Fletcher representative.

MSHA is constantly performing health and safety research in an attempt to make the mining industry as safe and as productive as possible. As a result of this research, laws and regulations have been created. As an example, each dust system must receive a 25B approval number. For a system to be eligible for approval all of the components must mesh together to meet MSHA requirements. If repairs or modifications must be made to the dust system on your Fletcher equipment, contact Fletcher to make sure the system stays within the specifications required to meet the 25B approval. Otherwise you could be in violation of MSHA regulations.

Fletcher is committed to helping you get the maximum performance from your equipment and fully comply with MSHA regulations.

For more information on silicosis you can access the MSHA website at www.msha.com

Canopy Support Post

J. H. Fletcher & Co. has made a design change in the support post housing to eliminate the pinch point between the collars on the outer post and intermediate post. The new design creates a 3/4” gap between the posts. Also, the intermediate collar was re-designed with a bevel decreasing the depth of the flat areas between collars. The new design does not change the cylinder height and stroke or the support post height.
Hand Held Hydraulic Resin Inserter

Fletcher has developed a Hand Held Hydraulic Resin Inserter Tool (Patent Pending) to be used on both mast feed and arm feed Fletcher roof bolters. On the mast feed machines the tool can be used for installing resin cartridges in rib or angled holes.

When used with the arm feed roof bolters, such as the Roof Ranger II, the Hand Held Hydraulic Resin Inserter allows for the installation of resin cartridges in high roof conditions. The resin tool does not eliminate the need to have a machine matched to the mine height.

The Resin Inserter is designed to be easily installed on existing machines as well as being integrated into the design of new machines.

To use the tool, the resin is first inserted into the tube. Then the end of the tube is placed against the hole. Pushing a button on the handle activates a hydraulically driven flexible snake that shoves the resin into the hole.

If you would like more information on the Hydraulic Resin Inserter tool contact your local Fletcher representative or our Sales

Venturi Power Fill Pump

Maintaining the correct level of hydraulic oil is extremely important to the operation of Fletcher mining equipment. We advise to never pour oil directly into the tank since this will allow contamination to get into the hydraulic system which could cause valve sticking and other safety and maintenance problems. One method of adding hydraulic oil is with the Venturi Power Fill Pump. Fletcher has recently redesigned this pump to work more efficiently and reduce the amount of time it takes to add hydraulic oil. When used with a 1” suction hose, we have seen flow as much as 11gpm on a 9 gallon circuit and 16gpm on 27 gallon circuit.

If your machines are not already equipped with this style pump it can be ordered using part number 143871. The new pump is compact, easy to install, and will fit in the existing coupling on the tank.
Costain EMTs Take First Place

The West Kentucky Mine Institute “Safety Days was held this past June. The EMT team from Costain Coal came away with first place in the EMT contest. The first place trophy was sponsored by J. H. Fletcher & Co. and was presented to the team by John Franklin, Commissioner for the Kentucky Department of Mines & Minerals, and Grover Fischbeck, Field Representative for J. H. Fletcher & Co.

J. H. Fletcher & Co. congratulates the team which consists of Rodney Head (Captain), Kevin Vaughn (EMT), and Jeff Eli (Patient).

John Franklin, Rodney Head, Kevin Vaughn, Jeff Eli, Grover Fischbeck

The information contained in this newsletter has been obtained from sources believed to be reliable, and the editors have exercised reasonable care to assure its accuracy. However, J. H. Fletcher & Co. does not guarantee that contents of this publication are correct and statements attributed to other sources do not necessarily reflect the opinion or position of J. H. Fletcher & Co.

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