U.S.SAWS

Objective Data Testing for Concrete Joint Cleanout

OSHA 29 CFR §1926.1153 Respirable Silica Dust Exposure

US SAWS MK-III Dust Buggy Joint Cleanout Mill (SX13700)

Used in conjunction with US SAWS Ultra-Vac 1250 HEPA (SX50000)

US Saws, voluntarily and at our own cost, conducted a respirable silica dust exposure test to gain an understanding of the operator's level of exposure during the task being performed, and measure the effectiveness of the products being used to perform said task. The results of the test provide objective data for compliance under the exposure assessment requirements of the OSHA 29 CFR §1926.1153 Respirable Silica Dust Exposure Standard.

Test Conditions:

* Test duration: 30 Minutes

* Base Material: Concrete (3500 psi)

* Room Size: 962 m3

* Room Ventilation: Closed, no ventilation

* Air Sampler: SKC AirChek52 using PW 5UM PVC 3PC Media

* Application: Cleaning loose debris from control joints to prepare for joint sealant application.

* Length of joints: 120 Lineal Feet

* Width of joints before cleaning process: 0.125”

* Depth of Joints before cleaning process: 1.25”

* Width of joints after cleaning process: 0.250”

* Depth of joints after cleaning process: 1.50”

* Condition of joints before cleaning process: 85% full of dirt and debris

* Amount of dust generated: 21 lbs.

* Air Sample Volume: 74.91 liters

* Respirable silica exposure: 0 ug, >0.050mg.

Important Note: The “Joint Mill” device designed and manufactured by US Saws, Inc, often times referred to as a “joint cleanout saw” is a machine intended to prepare sidewalls and bottom of a pre-existing control joint. The machine’s diamond disc, rotates in an upward rotation, thereby ejecting debris and dust out of the joint. A properly sized vacuum must be attached to the dust collection port which must be in-line with the stream of dust being ejected to be properly collected. The purpose of “joint cleanout” is to allow a liquid joint fill material to be properly placed and adhere to the substrate in accordance with the manufacturer’s specifications and requirements.

How the Joint Cleanout Mill differs from a “saw”:

The Joint Cleanout Mill is not intended to make new cuts in concrete surfaces. It is not intended to be used wet. It is not intended to be used without a suitable dust collection vacuum. The blade or disc rotates in an upward rotation.

US Saws, Inc. in conjunction with equipment supplied by SGS Galson Labs conducted a respirable silica and dust exposure assessment to evaluate the operators’ exposure levels utilizing dust collection systems manufactured by US Saws, Inc. Each test was done with an experienced and qualified machine operator, utilizing the tools in a way in which they were intended and designed for. EN standards were incorporated apart from EN50632-1 which does not represent a significant amount of actual exposure environments. The employer must assess the worker’s environment and compare these test conditions for proper compliance with OSHA regulations. Larger or smaller room sizes will decrease or increase exposure levels. US Saws, Inc.’s objective of these tests is to demonstrate the effectiveness of systems designed for use in operations not listed in OSHA Table 1.