

MARKET ALERT

New OSHA Standard for Construction Industry

Respirable Crystalline Silica (RCS) Standard for Jackhammer Operation Was Effective September 23, 2017

The U.S. Occupational Health and Safety Administration (OSHA) has created a new standard to address the problem of crystalline silica dust control associated with pneumatic jackhammer and breaker operation in the construction industry. The mandated compliance date of the new silica rule was September 23, 2017.

A wet method suppression system is a compliant solution suggested by industry practices and government research. However, some hose-oriented deployment methods are more efficient and effective than others:



1) Manual Water Spraying Using a Helper

- A two-person job using a dedicated helper holding a water hose with a nozzle, where the helper sprays water at the locus of the jackhammer tip and work object
 - *Efficiency is diminished by requiring two workers for one basic operation*
 - *Effectiveness depends upon the attentiveness, experience and skill of the helper*

2) Independent and Unconnected Air and Water Hose Lines

- Hoses typically use bands or clamps to attach fittings
- Attach hoses to a retrofitted jackhammer
 - *Effectiveness is hampered by requiring the jackhammer operator to devote attention, effort and time to regularly inspect the security of the fittings and attachment component*
 - *Operator must also handle and maneuver independent hoses around debris, equipment and other obstacles to avoid hose damage and kinking*

3) Independent and Mechanically Connected Air and Water Hose Lines

- Hoses typically use bands or clamps to attach fittings
- Apply zip ties, straps, tape or other connectors at multiple intervals along the lengths of both hoses to mechanically connect them
- Attach hoses to a retrofitted jackhammer
 - *Effectiveness is hampered by requiring the jackhammer operator to devote attention, effort and time to:*
 - *Select, procure and apply zip ties, straps or tape to hoses,*
 - *Regularly inspect the security of the fittings and attachment components, and*
 - *Handle and maneuver hoses whose zip ties, straps, tape and gaps between the hoses become snagged by debris, equipment and other obstacles at the jobsite, becoming potential safety hazards*

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Continued from page 1

Pre-spraying or wetting down the work area prior to jackhammer operation is ineffective and does not comply with the OSHA regulations.

Jackhammer operation can release into the air a form of quartz known as respirable crystalline silica (RCS), a substance found in bricks, clay, concrete, mortar, rock, stone and many other materials common to construction sites. RCS can embed in the lungs of unprotected workers,

causing serious, even debilitating health issues or death from conditions such as lung cancer, chronic obstructive pulmonary disease (COPD), kidney disease or silicosis.

Refer to OSHA's *Final Rule to Protect Workers from Exposure to Respirable Crystalline Silica*. For additional information visit [OSHA's website](#) and the [Code of Federal Regulations \(CFR\)](#).

INEFFICIENT APPROACHES



Tape hoses together



Zip tie or strap hoses together

Parker Solution

Parker has reacted quickly to develop and deploy a more efficient and effective wet method hose solution— Series 7084 Twinhammer™ Chemically Bonded Air/Water Jackhammer Hose Assemblies—designed as an integral component of an OSHA-compliant silica dust suppression system.

The Parker Twinhammer hose dual air and water lines are a stable, unitized construction that allows fit-to-need adjustment for easy attachment to air and water sources. The adjustment also provides easy attachment to retrofitted jackhammers on the other end of the hose. Twinhammer hose uses a precisely fabricated hose assembly system that incorporates maintenance-free permanent crimped fittings, bonded lines for efficient and effective installation, and kink-resistant handling that easily negotiates debris and impediments.

For product information, visit parker.com/hpd



A Better Solution:
Parker Twinhammer™ Chemically Bonded Air/Water Jackhammer Hose Assembly

