

Press Release
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Plymovent challenges the status quo on welding fume safety

"Complying with welding fume regulations doesn't guarantee a safe working environment," says Michel Lighthart, Product and International Sales Manager at Plymovent. Lighthart highlights three key trends to raise awareness about the dangers of welding fumes and calls attention to gaps in current legislation.

"The legislation is far from perfect," he states, underscoring how European regulations fall short of protecting welders from the hazardous effects of fine particles and carcinogenic substances in welding fumes.

A Startling Comparison: Air Quality Indoors vs. Outdoors

Lighthart often begins client presentations with a striking image of India Gate in Delhi engulfed in smog. "Ironically, the air quality in this image—clearly hazardous—could still comply with European regulations for welding hall environments. This is because welding fumes are fine particles, similar to those in outdoor smog, but at far higher allowable exposure levels indoors."

Key insights include:

1. **Lax Exposure Limits:** Indoor exposure limits for welding fumes are 50 times less strict than outdoor fine particle regulations.
2. **No Safe Threshold:** The International Agency for Research on Cancer (IARC) confirms there is no safe level of exposure to welding fumes.
3. **Insufficient Standards:** European and ISO Standard 21904 fail to adequately address the risks of components like chromium-6, a known carcinogen.

Trend 1: Overly Permissive Exposure Standards

Michel explains, "The permissible limit for fine particles outdoors is 20 micrograms per cubic meter, while indoor welding fume limits can reach 1,000 micrograms in some European countries—50 times higher."

This disparity underscores a critical flaw: compliance does not equate to safety. "Legislation lags behind scientific insights, leaving welders exposed to levels that are proven harmful over time," he warns.

Trend 2: Welding Fumes Are All Carcinogenic

The IARC classifies all welding fumes as carcinogenic. Yet, Lighthart points out, "Current standards for welding fume extraction equipment focus on overall filtration efficiency without guaranteeing compliance for specific toxic components like chromium-6."

Even when compliant equipment is used, carcinogenic particles may still pose a risk, creating a false sense of security for welders.

Trend 3: The Rise of HEPA Filters

The growing adoption of HEPA filters offers a glimmer of hope. These filters capture at least 99.7% of particles as small as 0.3 microns, making them a vital tool for reducing exposure to harmful welding fumes.

"In the U.S., HEPA filters are standard, and Europe is catching up," notes Lighthart. "Using HEPA filters significantly increases the likelihood of meeting exposure limits for hazardous substances."

Plymovent's Commitment to Clean Air

Michel concludes, "At Plymovent, we aim to go beyond compliance. We advocate for workplace safety standards that align with the latest health research. Protecting welders is not just about meeting legal requirements; it is about creating environments that are truly safe."

By combining advanced technology with forward-thinking practices, Plymovent provides welders with clean air and peace of mind. As Ligthart puts it, "In an industry where skilled labour is scarce, taking health risks is simply not an option."

For more information on how Plymovent can help create a safer workplace, visit www.plymovent.com.

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