Ultra Low Emission Heaters



With over 100 years of experience, the Howden engineering team has developed an ultra low NO₂ emissions mine heating solution that can be fully integrated with an existing ventilation system.

Emissions regulations compliant

To support mine safety, there is an emerging global trend to reduce levels of human exposure to NO₂ in mining workplaces.

In Canada, the generally accepted threshold level has been 3 parts per million (ppm). However, there is a recent trend to reduce this level to 0.2 ppm – which is 15 times lower than it was in the past.

In Canada, permissible exposure levels for NO₂ are regulated by province/territory. To date, the ACGIH exposure limits for NO₂ at TLV-0.2 ppm and STEL 1.0 ppm have been adopted by British Columbia, Manitoba, Newfoundland and Labrador, and Nova Scotia.

Howden's Ultra Low Emission Heaters cold flame technology provides uniform temperature differential while maintaining NO₂ emission under 0.2 ppm, significantly reducing miner exposure.

Seamless integration

Howden's Ultra Low Emission Heaters have been designed by some of the world's leading mine ventilation and heating experts with decades of experience in combustion and heating system design and installation as well as in fan and ventilation system design and installations.

This has allowed Howden the in-house ability to deliver a solution that:

Provides the lowest direct-fired, mine air heating emissions available

Can be seamlessly integrated into most existing mine ventilation systems

Provides uniform heat distribution

Protects the existing mine fan and associated devices from potential failure caused by heat stratification

Maximizes safety and efficiency while reducing potential downtime and the need for additional footprint and retrofitting







To speak to our experts about our mine heating solutions contact: mine.heating@howden.com