

Developing leading edge catalyst technology for Diesel Exhaust Systems





A Revolutionary Product in Diesel Exhaust Emissions Control Systems

In sensitive environments like mines, controlling emissions is critical. AirFlow Catalyst Systems has developed a device that minimizes (Min) NO₂ (No) while reducing other critical emissions through catalyst technology (Cat).

MinNoCat is ideal for equipment used in continuous operations.

Equipment running continuously in underground environments typically operate at higher temperatures⁴. AirFlow's passively regenerating systems address the main emissions concerns of DPM, CO and HC. MinNoCat effectively lowers NO₂ at device-out levels comparable to engine-out**.

Base metal catalysts and other active systems are often used to address NO_2 or NOx concerns. MinNoCat will reduce HC and CO, whereas base metal catalysts do not without the assistance of a DOC. It is critical to properly identify operating temperatures prior to selecting a system for any mining equipment.

MinNoCat offers the unique AirFlow benefits of

- PASSIVELY REGENERATING to MINIMIZE DOWNTIME and REDUCE MAINTENANCE COSTS
- Higher HC and Co reduction than alternative high-temperature solutions
- Having the HIGHEST EFFICIENCY RATING of passively regenerating systems listed by MSHA[†]
- Single, self-contained unit, built in a durable stainless steel can for the mining environment

MinNoCat meets the 2.5G/H Filter Efficiency requirements of <u>99.7%</u> of engines listed by MSHA (Jan. 2011)

Proven Performance

MSHA Listed *	
Filter Efficiency	95%
CO	83%
Temperature [¥]	400°C

¥ T30 Temperature varies, but typically runs 400°C+ *7.69-30 CFR, ISO 8 mode test

** Subject to specific engine and operation conditions

† See www.msha.gov/01-995/Coal/DPM-FilterEfflist.pdf

Rugged Construction

AirFlow's MinNoCat is built for operating in rugged environments such as tunnels and underground mines. Physical features that add value and maximize performance efficiency:

- Canned in sturdy stainless steel material
- Constructed to withstand vibration
- Cooling jacketing available upon request



The AirFlow Difference:

Industry-leading services:

- Customized Solutions
- Engineering Expertise
- Coating Expertise
- Technical Support (pre-, during, post-installation)
- Customer Service Focus

Additional industry leading products from AirFlow:

- EZCat: Passively regenerating emissions reduction system, frequent idling conditions
- MinNoDOC: Low NO2 Diesel Oxidation Catalyst
- EZDoc[™]: Diesel Oxidation Catalyst Systems
- Custom Coatings

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