



# Mining Product: AQE - Air Quantity Estimator

Original creation date: March 2006

Authors: K Ajayi, V Gangrade, M Harris, J Britton, J Fritz, M Young, G Cole

The Air Quantity Estimator (AQE) provides a starting point for estimating the air quantity needed to dilute diesel particulate matter (DPM) in an underground large-opening mine, taking into account various input assumptions.

The AQE estimates the total air quantity needed to dilute DPM emissions that enter the main airstream of the mine to statutory levels. It helps operators pinpoint vehicles that are high DPM contributors. It also allows the user to make "what if" scenarios by varying the input parameters (e.g., the addition of filters, use of cleaner engines, etc.) to achieve the most efficient and practical ventilation system. Engine data must be known or estimated with some accuracy and assumptions must be made in order to limit the variability of the program output. The program does not ensure adequate face ventilation and personal exposure compliance.

Once the installation program is downloaded and unzipped, run **AQE\_Setup.msi** to install the program and necessary support files on the hard disk.



Software (Windows) -  
December 2022

Version: 2.0.29

[Download \(99.27 MB\)](#)

NIOSHTIC2 Number: [20066542](#)

Pittsburgh, PA: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, 2022 Dec: PC software, DHHS (NIOSH) Publication No. 2023-119