Preliminary, Practical Basics of Ventilating a Mine

Where we are headed!

A Primary Ventilation System:

Intake(s)

Mine Workings

Exhaust(s)

Various Ventilation Devices Are Necessary to Ensure That Adequate Airflow Are Delivered to the Right Places Effectively;

A Well-designed Ventilation System Should Be:

Effective
Flexible
Economical

Ventilation Control Devices

- Stopping
  - Temporary
  - Permanent
  - Seal
- Check curtain
- Line brattice
- Fan
- Vent pipe/tubing

with door
Ventilation Control Devices

- Door
- Airlock
- Regulator
- Box check
- Overcast/undercast
- Pipe overcast
FIG. 2. Overcasts direct mine air in modern systems. Notice that most overcasts occur as one of many in a system for air direction.

FIGURE 13.7  Box-type regulator (Rock et al., 1971).

FIG. 46. Exploded view of man door going into the stopping.

FIGURE 13.6  Inexpensive but efficient overcast (Rock et al., 1971).
Next we’ll get into making ventilation calculations to support good ventilation planning.