

Ventilation on **Demand** Hardware for Underground Mining

Fans, regulators, dampers, monitoring and control panels for smarter airflow control

Clemcorp
Mining Ventilation

Ventilation on Demand starts with connected hardware

Software can only optimise what underground hardware can measure and control.

Clemcorp supplies the VOD-ready hardware layer that helps mines regulate airflow, verify conditions and respond to changing underground demand.



BYRNECUT SANBRADO PORTAL BURKINA FASO



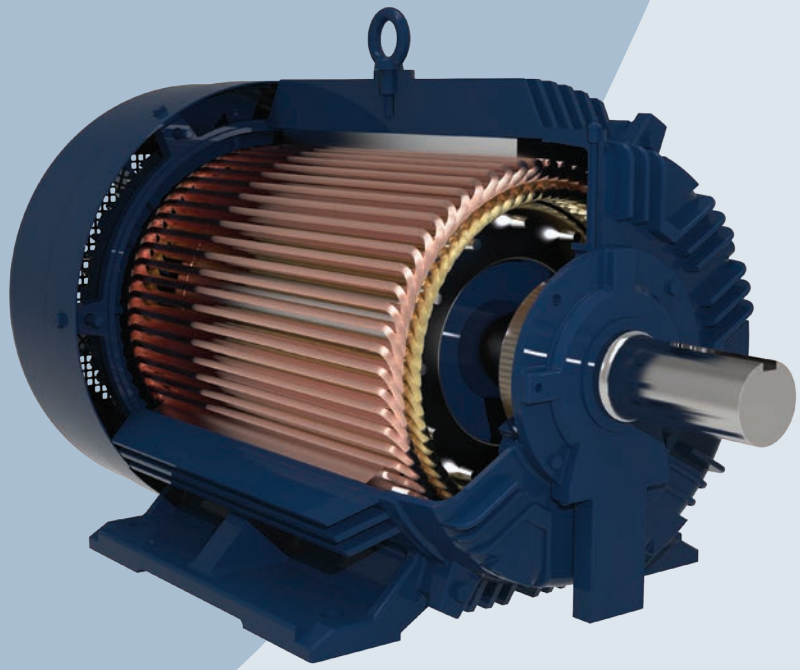
Why VOD Hardware Matters



- Direct air where it is required.
- Reduce unnecessary fan power.
- Support blast fume clearing and re-entry management.
- Reduce manual regulator changes.
- Improve visibility of underground conditions.
- Support staged automation upgrades.
- Help sites build toward more responsive ventilation control.
- Reduced power usage leads to reduced operational costs.
- Meet and exceed regulatory requirements.

DUAL SPEED AXIAL FANS

High airflow when required. Lower speed when demand drops



- Dual-speed axial fans allow sites to operate at either high or low speed to match airflow demand, with a 33% reduction in fan speed delivering up to a 70% reduction in power consumption.
- Designed for mines seeking simple practical fan control with low risk proven technology.
- Allows control of fan speed and air flow without the use of a VSD.
- Suitable for single or multi-stage configurations.
- Can be paired with custom PLC / HMI starter panels.
- Designed for local or remote operation.
- Supports staged VOD implementation.

AUTOMATED LOUVRE REGULATORS

Primary airflow control without manual drop-board regulation

- Automates ventilation flows on levels.
- Helps regulate return-air and exhaust pathways.
- Supports Rotary or Linear Actuators.
- Stainless Steel and Galvanised Design for demanding underground application.
- Zero Maintenance Custom Bearing Design.
- Labyrinth seal low leakage blade design.
- Suitable for integration into site-specific VOD control architectures.
- Integrates with site air flow and pressure monitoring for automated vent on demand.



AUTOMATED BUTTERFLY DAMPERS

Secondary ventilation control on demand

- Designed for secondary ventilation control.
- Regulates airflow through ducted ventilation systems.
- Can support partial positioning, feedback and automated control logic.
- Can be paired with airflow monitoring for verification.
- Useful where mines need to distribute air between headings, cross-cuts or production areas.





MAESTRO ENVIRONMENTAL MONITORING

Real-time monitoring for safer, smarter airflow decisions

- Environmental monitoring is the data layer of VOD.
- Monitors airflow, air direction, gases and climate conditions depending on sensor configuration.
- Supports alarms, TARPs, operational visibility and automated response strategies.
- Can be used with dashboards, local displays and connected mine networks.

VOD CONTROL PANELS

Local control for connected ventilation hardware

- VOD Control Panels connect compatible underground ventilation devices to the site control architecture.
- Provide local HMI access for operation, commissioning and troubleshooting.
- Can connect louvres, dampers and monitoring devices.
- Support local visibility of device status and environmental readings.
- Help create a practical control layer between underground hardware and site automation platforms.
- Platform agnostic and site configurable, can be operated via site SCADA or Ventsim Control.



Proven VOD Deployments

AGNICO EAGLE

Evolution MINING

BHP

Valterra PLATINUM

FOSTERVILLE GOLD MINE

Victoria, Australia

Clemcorp VOD hardware

- Dual speed fans
- Automated regulators
- Environmental monitoring
- Control integration.

COWAL GOLD MINE

New South Wales. Australia

Clemcorp VOD hardware

- Automated butterfly dampers
- Automated louvre regulators
- Control stations
- Maestro monitoring.

CARRAPATEENA COPPER MINE

South Australia, Australia

Clemcorp VOD hardware

- Dual-winding secondary fans
- Automated butterfly dampers
- Automated louvres
- Ultrasonic flow sensors
- Environmental monitoring stations.

MOGALAKWENA PLATINUM MINE

Mokopane, South Africa

Clemcorp VOD hardware

- Dual speed fans
- Automated regulators
- Environmental monitoring
- Control integration.

VOD Solution

In conjunction with Dwyka Mining Services.

> *"The collaboration with Dwyka Mining Services and Clemcorp Australia provided a robust, adaptable ventilation system that gave us greater flexibility and control across our ventilation network."*

Warren Marler - Valterra Platinum

PLUS PLENTY MORE

- Liontown - Kathleen Valley
- Mineral Resources - Mt Marion
- Valterra - Jwaneng

WHY CLEMCORP

Ready to build the hardware layer for Ventilation on Demand?



Clemcorp supplies practical, mine-ready VOD hardware for global underground mining operations.

VOD Product matrix

- Dual Speed Axial Fans
- Automated Louvre Regulators
- Automated Butterfly Dampers
- Maestro Environmental Monitoring
- VOD Control Panels

VOD Capabilities

- Underground mining ventilation specialists
- Hardware and platform-agnostic approach
- System design
- Australian manufacturing and engineering capability
- FAT Testing of Hardware Solutions
- Global project experience
- Hardware selection and customization
- Project Management and local support



Request a quote for your
VOD hardware package.



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