

Simulation
& Modelling



Mine
Ventilation



Mine Cooling
& Heating

CAPABILITY OVERVIEW

Specialised independent mine and tunneling ventilation consultancy with over 25 years experience, with global expertise in challenging mines and environments.

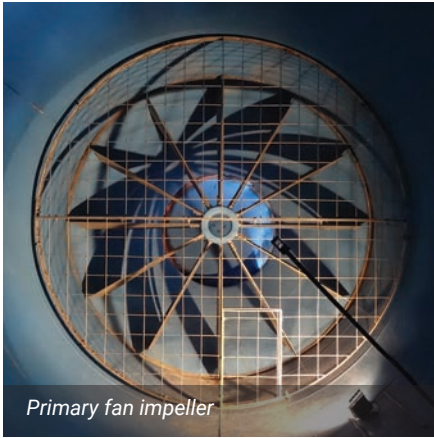
BBE Group is a global organisation, with experience in a vast range of mining methods across all types of commodities. The Group has offices in Australia, Canada and South Africa, servicing mines across all three continents.

Utilising the latest technology, our independent expert engineering consultants provide clients with support throughout all phases of the mining project. From initial concepts, evaluation, implementation, through to the operation of bespoke ventilation, cooling/heating systems.

Our multi-disciplinary consultants provide site support in mine ventilation and cooling/heating projects for complete ventilation systems.

Our experience includes multiple fan technologies and engineering design for both surface and underground primary fans stations, bulk air cooling and refrigeration systems as well as ventilation on demand solutions.

BBE Group specialises in designs, studies, project support, site support, reviews and all other technical matters related to underground working environments.



Primary fan impeller



Refrigeration plant surface installation



Condenser cooling tower cut-away

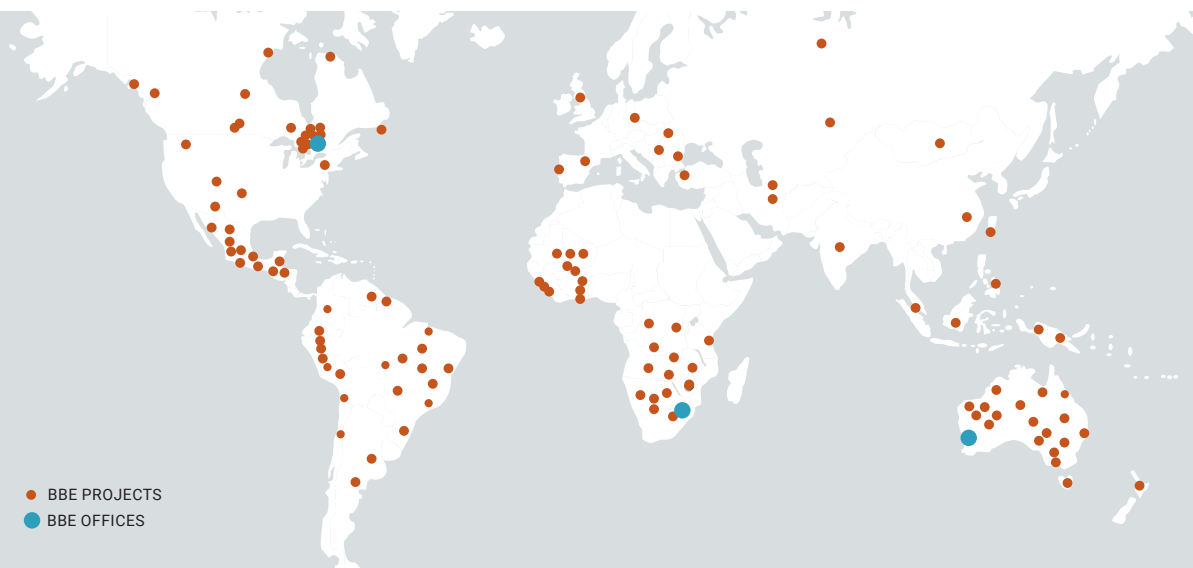
Services include conceptual designs up to detail engineering and support

- Concept designs and trade-off studies
- Analysis, design and optimisation of ventilation systems and networks
- Heat load analysis and thermodynamic network modelling
- Heat stress management strategies
- Refrigeration equipment sizing and selection
- Preparing scope of works, equipment specifications and drawings for inclusion in tender packages
- Evaluation and adjudication of tenders
- Detailed engineering specifications for ventilation, cooling, refrigeration and heating
- Rock thermal properties and geothermal measurements
- Technical input during constructing and project management support
- Surveys, reviews, trouble shooting and performance assessment of cooling systems
- Ventilation system commissioning
- Underground contaminant measurement, control, management and modelling
- Energy management and system optimisation
- Detailed cost-estimation and scheduling
- Vent-on-Demand (VoD) projects; and
- Blasting re-entry and/or Fire modelling.

Software

BBE make extensive use of commercially available software packages including:

- Ventilation and network simulation: VumA; Ventsim; VNetPC
- Computer Aided Design - Autodesk suite
- Mine planning software - Deswik
- Pumping design and modelling - Pumpsim
- Computational Fluid Dynamics (CFD)
- Cost Estimating - Benchmark Estimating.



● BBE PROJECTS
● BBE OFFICES