



# Containerised Bulk Air Cooling (BAC) Solutions

IWC is a global specialist in designing and building bulk air coolers for the mining sector. With over 30 years of experience in developing ventilation and cooling technology, we are uniquely positioned to provide bespoke solutions for any mines your cooling needs.

Underground mining operations make use of some of the largest ventilation and cooling systems in the world. Typically incorporating various types of cooling technology such as evaporative condensers, refrigeration plants, pre-cooling towers, condenser cooling towers, and bulk air coolers.



# We offer a range of bulk air coolers (BAC) to keep underground temperatures at an optimum level, ensuring increased productivity and a safer work environment.

The latest addition to our BAC range is a containerised BAC (single and 2 stage) unit which are ideal for both surface and underground use. The BAC offers air cooling rates of up to 1 100kW, making it ideal for smaller capacity installations as well as spot cooling.

These containerised induced draught, cross flow BAC's are equipped with directly driven axial flow fans, air mixing louvres and are designed to be easily transported to site, making for a simple installation that can be deployed to remote mine sites and can be relocated if required.



## Advantages



Non-corrosive



Low maintenance intervals and long service life



Spot cooling - surface and underground



Contained, simple air cooling solution

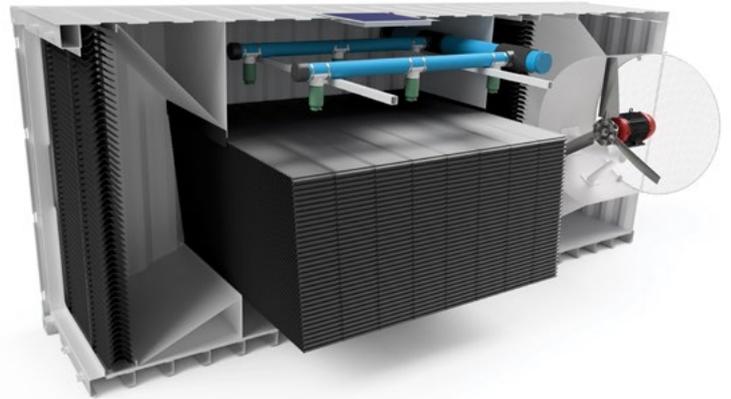


Rental or long term lease options available



Ideal for mines in remote areas

IWC is proud to be associated with the South African gold and platinum mining industry and has provided a number of surface and underground bulk air coolers as well as field erected condenser cooling towers.



The BAC selection is usually an iterative process with the chiller supplier to get to the best COP etc. but as a minimum, we need the following to design the BAC.

| Air Side                | Inlet | Outlet | Units |
|-------------------------|-------|--------|-------|
| Dry bulb temperature    | x     | x      | °C    |
| Wet bulb temperature    | x     | x      | °C    |
| Barometric pressure     | x     | x      | kPa   |
| Mass flow (Ambient)     | x     | x      | kg/s  |
| Water side (Evaporator) | Inlet | Outlet | Units |
| Temperature             | x     | x      | °C    |
| Flow rate               | xx    | xx     | kg/s  |
| Heat exchanged          | xxx   | xxx    | kW    |