

A photograph of a mine shaft interior, showing a long, narrow tunnel with tracks on the floor and a person climbing a ladder on the left. The walls are rough and rocky, and the lighting is dim, with a bright light source at the end of the tunnel.

Developing a customised ventilation system solution

Mine shaft air intake, USA

Cold weather provides a unique set of problems to the efficient operation of equipment and processes, whether land-based, offshore, or marine. To optimise inside temperature and humidity it's vital to achieve and maintain a constant, dependable supply of air from the outside – no matter the weather.

Water droplets from ventilation fans freeze in winter

A US Mine Engineering company contracted Munters to resolve a water carryover issue on the discharge side of the mine shaft ventilation fans. Water droplets entrained in the mine shaft ventilation air were being discharged out of the fans. The liquid would freeze in the winter on all surfaces in a large radius around the exhaust fan creating a dangerous situation as the liquid froze. It would also coat nearby equipment, creating potential maintenance and operating concerns. Additionally, this liquid could contain contaminants that could mix with groundwater.



Munters DH 5000 Mist Eliminator.

Developing and installing a customised system

Munters developed a separator system that was engineered and manufactured to capture entrained liquid. The equipment consisted of:

- Munters DH Series mist eliminators
- Housing with transition to attach to the discharge side of the fan
- An inlet wash system to wash off any insoluble particulates that may coat the chevrons
- Uptumed discharge section to vent the air straight up

Case study

Customised solution for ventilation system, Mine Shaft.

Advantages:

- Ensuring adequate air supply at all times
- Protecting processes and equipment
- Stopping build-up of bacteria and mold
- Reducing maintenance requirements

Would you like to find out if Munters has a solution for your company too? If so, please visit our website, www.munters.com

Munters reserves the right to make alterations to specifications, quantities, etc., for production or other reasons, subsequent to publication.
© Munters AB, 2021