

# RESOURCES REVIEW

**Australian Power Equipment  
keeps mining powered**

Native title review sharpens focus on  
structural failures and industry reform

BHP defers decarbonisation plans, citing low  
confidence in net-zero pathway

# EnviroMist's latest industry-leading dust suppression systems



Through ongoing research and development, EnviroMist has implemented numerous improvements to its award-winning High Energy Micromist Dust Suppression Systems.

The most recent systems delivered offer improved reliability and maintainability, including specialised water conditioning for harsh mining environments.

Operating at high pressure and using water only, EnviroMist dust suppression systems set the global industry standard for dust suppression performance in bulk material handling processes.

EnviroMist continues to improve its systems based on data from existing installations to further improve the reliability, maintainability and operability of its award-winning designs.

Included in the design of the newest systems, EnviroMist's High Energy Micromist Dust Suppression Systems include the following features:

- EnviroMist's nozzle system, which develops micro droplets without the addition of air to the water feed into the spray nozzles. The average water droplet diameter for a standard configuration is 40 microns. The droplet size is similar to the size of damaging respirable airborne dust particles generated from bulk materials handling processes.
- Spray nozzles that are resistant to blockage and last for many years without requiring replacement. Normal installations can typically be run without nozzle maintenance for up to 10 years, provided the system is operated and maintained within design parameters.
- Patented cluster nozzles spray bars for long-distance reach.
- Starting of the high-pressure pump in an unloaded condition, reducing starting motor currents. Loading of the pump only occurs when a spray signal is received by the onboard control system. The configuration allows unlimited spray start/stop cycles without affecting the performance of the system.
- The ability to adjust the outlet pressure on the high-pressure pump from 0-100 per cent of its design capacity, allowing the system pressure to be optimised for the installation configuration. This allows water and power consumption to be reduced without compromising dust suppression efficiency.



- New skid-mounted Self-Cleaning Filters with redundancy. EnviroMist's latest high-pressure dust suppression systems include the addition of proven water conditioning modules, which require zero maintenance and no dosing over their 25-year service life.

Additional improvements include upgraded instrumentation for the control of the valving – leading to quicker valve actuation time, upgraded tank instrumentation which can be controlled and calibrated via a Bluetooth connection, and other instrumentation upgrades.

In addition to high-pressure systems, EnviroMist has recently designed and delivered low-pressure dust suppression systems for other major clients.

This is for plant areas that do not require a high-pressure solution, such as within conveyor transfer points.

Other recent projects include dust suppression systems for a gold mine ROM and COS, car dumper operations and port loading/unloading facilities.

EnviroMist's Quality Assurance system has recently been accredited for an additional three years, ensuring compliance with client technical and commercial requirements.

The QA system monitors all project processes from initial tenders through to commissioning, handover and ongoing operations.

EnviroMist's quality processes meet the requirements of Australia's most stringent mining clients, ensuring the final delivered product matches the client's expectations.

