

# CSG

MINING EQUIPMENT



**SMART AND SIMPLE SOLUTIONS**  
FOR UNDERGROUND COAL MINES

## INTRODUCING THE MK3 AIR PUMP CONTROLLER

The MK3 is a retrofitted controller that improves the service life of your diaphragm pumps and reduces electricity and maintenance costs.

Effective and efficient water management is critical to maintaining asset integrity and meeting production targets. This is especially true as the industry looks for ways to do more with less.

Diaphragm pumps have long been the industry standard for dewatering at underground mines. A major flaw of these pumps is their continuous run time, requiring significant expenditure on infrastructure and electricity to ensure sufficient air supply for operation. This leads to a relatively short service life with high electricity and maintenance costs.

The MK3 changes that.

### HOW IT WORKS

The MK3 Air Pump Controller runs the pump only when its moving water, reducing air consumption and wear while extending service life. Lower air consumption also means maintaining line pressure throughout the mine is much easier.

Mine equipment needs to be durable, reliable, and able to function under the worst conditions. The MK3 controller is built to last, through a combination of quality materials and solid engineering. It can be fitted in 15 minutes, deployed in 2 minutes.

We are committed to continuous improvement and extensively test our controllers to ensure they continue to deliver outstanding results in pump operation and cost savings.



### BENEFITS OF USING A MK3 AIR PUMP CONTROLLER

-  Quick and easy installation
-  Short ROI
-  Reduces risk of equipment failure
-  Improves pump service life
-  Extends maintenance intervals
-  Cuts electricity and maintenance costs
-  Reduces carbon footprint

### FINALIST 2019 AUSTRALIAN MINING PROSPECT AWARDS

CSGME's Air Pump Controller was a finalist in the Innovative Mining Solution category at the 2019 Australian Mining Prospect Awards.

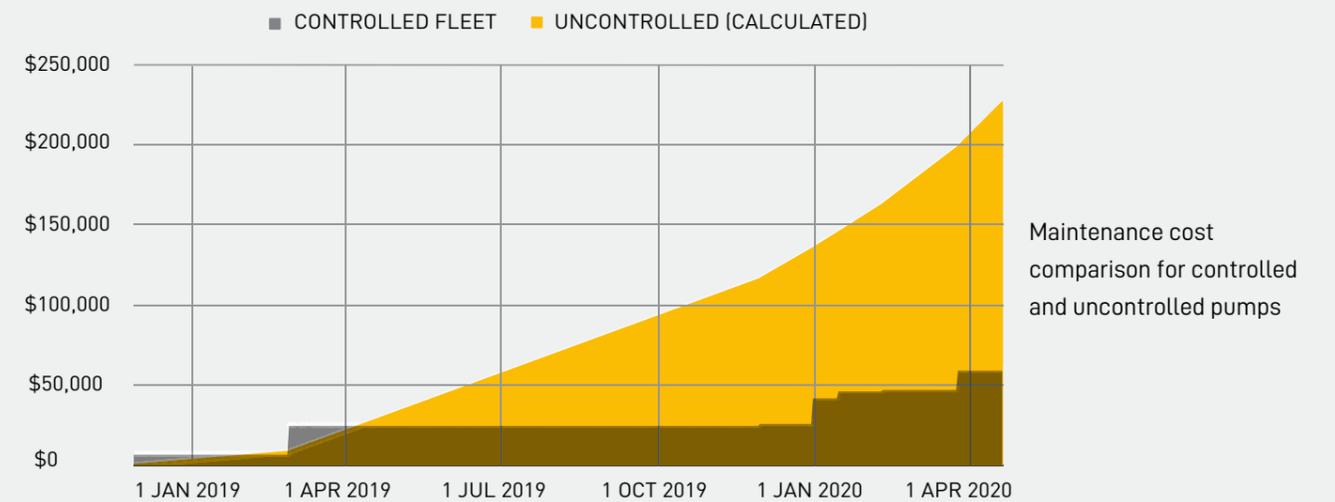


## TYPICAL RESULTS TRIALS AT A QUEENSLAND COAL MINE

CSGME's controller underwent an extensive trial and testing period at a Queensland underground coal mine over a period of 18 months. The staged trial saw a total of 71 controllers installed on pumps across the mine. They were in operation for a combined 15,092 days of service and mine data showed a reduction in air consumption of approx. 65 m3min-1. Annualised cost savings (maintenance and electricity) based on this trial were \$705,966.

### SERVICE LIFE & MAINTENANCE COSTS

Due to their continuous operation, diaphragm pumps have an average service life of around 60 days. Through testing and trials, we've seen an exponential increase in average pump service life to 274 days following installation of the CSGME controllers. This represents a significant saving in pump maintenance costs with service intervals extending out to one year.



### ELECTRICITY COSTS COMPARISON

The energy cost of a pump without a controller fitted is approx. \$6,161 per year. With approx. 84% reduction in running time, energy costs for a pump fitted with a controller is estimated at \$985 per year. This represents an annual saving of \$5,193 in energy costs for each pump fitted with a CSGME Air Pump Controller.



Hi-Flow controller for use with large pumps.

\*Assuming an energy tariff of \$0.13307/kWh and a power demand of 5.3kW to supply 1.1 m3min-1 of air to each pump.



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## TRIALS AVAILABLE

CSG Mining Equipment invites you to see the benefits for yourself. We offer stepped trials with data and cost evaluations at each stage. We can even provide customisable data loggers to help you get the most out of your trial. We'll audit your current pump fleet and provide advice on how you can reduce your costs while maintaining required outputs.



## ABOUT

CSGME is a Queensland company that values innovation and is committed to continuous improvement. With more than a decade of on-the-ground experience, we can provide custom solutions that are both practical and effective.



OUR DISTRIBUTOR:



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## CONTACT US

### **Want to know more?**

Talk to us about the cost savings the CSGME MK3 Air Pump Controller could bring to your operation.

### **You can reach our team on:**

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