



## CASE STUDY

# United Wambo



**Location:**  
Warkworth, NSW

**Industry:**  
Coal Mining

**Services:**  
Engineering Design,  
Fabrication,  
Instrumentation

**Value:**  
\$5 million

### THE CLIENT

United Wambo is a 50:50 joint venture between United Collieries and Wambo Coal – a subsidiary of Peabody, located in the Hunter Valley in NSW. For this project we partnered with the client, supporting them on the manufacture and installation of gas drainage equipment for a significant underground coal mine project.

### THE CHALLENGE

The challenge for this client was that the location of the mine did not allow for sufficient space

on the surface for the standard equipment used to ensure safe gas extraction for the mine's development. The Wambo team sought a technical solution via competitive tender.

During the process of the tender the client became aware of our technical experience as a turnkey solution provider, managing the complete equipment lifecycle across the engineering and design, fabrication, instrumentation and installation processes. Our tender presented a case highlighting that CS GAS pioneered an industry-first solution for a similar situation in 2014.

## THE SOLUTION

CS GAS' in-house multidisciplinary engineering team set out to build a custom solution with engagement from the client to ensure the solution met specification, functionality and health, safety and environment (HSE) standards.

In previous designs, an inlet separator was incorporated within the blower skid, making the individual unit larger. To shrink the overall footprint of the installation, CS GAS developed a common inlet manifold to replace each unit separator, connected to a series of space-saving skids incorporating the blower, gas analysis and control panels. The new manifold system enabled scalability not just in the addition of more blower units, but also the possibility of a bolt-on extension of the manifold itself, making future additions of capacity much more cost effective.



## THE OUTCOME

The client was extremely happy with the outcome of their custom designed solution. The project was delivered on time and on budget, and importantly met the requirements around available space while maintaining full functionality and HSE requirements.

The CS GAS project resulted in a 20x reduction in emissions from the mine's development, with the combustion of methane into carbon dioxide and water well documented.

As compliance to NGER and carbon pricing continues in Australia, CS GAS have become well known across the industry as pioneers in emission reduction, due to the

design that was originally the solution to the Wambo space dilemma. Our solution has solved more problems than just space. The scalable manifold system and compact physical size of the solution also provides ease of transportation and installation, which in turn results in the cost savings all companies strive to achieve.



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