







# **CASE STUDY**

## Siemens Inflatable Blasting Shelter

#### BACKGROUND

Siemens is one of Australia's largest suppliers of power generation turbines, they also provide maintenance services for their turbines

Power plants, whether gas or coal, both rely on a turbine to generate their power.

These turbines need to undergo planned maintenance, approximately every six years, usually consisting of hundreds of personal and weeks of down time. During this time, turbines are completely disassembled, cleaned, tested and reassembled. One of the most critical parts of this maintenance is the cleaning of the turbine, which is done via abrasive blasting.

Siemens and Industrial Inflatable have worked together over the past 5 years developing cost effective solutions for the routine maintenance of power turbine maintenance.



#1 in portable inflatable shelters

#### **CHALLENGES**

Siemens' global operations generate revenue of around €80.0 billion and the company has around 377,000 employees worldwide. Locally in Australia and New Zealand, where Siemens has been active for over 145 years, the company employs around 2,200 people across 16 locations.

Their steam turbines work as generator drives or as mechanical drives for compressors or pumps. They play a signicant role in many combined cycle and cogeneration plants and in industrial applications.

Abrasive blasting is used in turbine maintenance as a method of cleaning parts that have been dirtied through years of use. Abrasive blasting creates a lot of mess as particles of the blasting medium are projected at a part. In an eort to contain the blasting material, the process must be completed in an enclosed space.

Traditionally scaolding would be erected and wrapped to create an enclosed environment to blast in. This method requires 2–3 days just for set-up and can cost between 7–10 thousand dollars. Siemens began to consider alternative methods of containing their abrasive blasting to reduce the time required to erect their blasting enclosure and reduce the ongoing cost of such blasting enclosures.





#### **CHALLENGES**

Industrial Inflatable has developed an industrial grade inflatable blasting shelter. Portable and easily erected Industrial Inflatable's blast shelter creates an enclosed environment in a matter of hours, saving days of time and thousands of dollars.

With portability being a primary concern, the inatable blast shelter can pack down to t on a pallet and can be transported between power plants. These shelters travel across Australia saving Siemens thousands of dollars and days of time at every power plant they maintain.

With strict operational health and safety on power plant sites Industrial Inflatable's sheltersoffer a huge advantage over traditional methods. With the advantage of requiring no rigging systems and heavy machinery, the inflatable blast shelters can be erected simply by unpacking and connecting to the fans, eliminating many OH&S complications faced with traditional methods of blasting enclosures.

#### **RESULTS**

With an initial investment of \$20,000 AUD Siemens saw a return on their investment within 3 maintenance projects. Not only did Industrial inflatable shelter save them money, they managed to reduce the time of their maintenance operations by up to 3 days. Using an inflatable shelter also reduced a multitude of OH&S issues that arose when working with scaffolding such as working at heights.

Andrew Beevor, Service operations team leader at Siemens explained that "From a health and safety perspective the inflatable is a lot better for us then the other solutions which is having guys crawling up on scaffolding up in the air somewhere"



### **EXAMPLES OF OUR WORK**













