

# REVOLUTIONARY RESPIRATORY PROTECTION



Every Breath Counts



Work Comfortably



Operational Efficiency

# CERVA

PROTECTING  
YOUR HEALTH  
SINCE 1991

WE ARE CERVA  
AND WE PROTECT YOUR HEALTH

**WHAT WE CARE ABOUT** We focus on supporting and educating the user on using the right personal protective equipment that provides maximum safety. Doing this, we help protect the most important thing we can ever have: **HUMAN HEALTH.**

**WHERE ARE WE HEADING**  
We know that every company strives to ensure that its customers are fully satisfied. But we want more - we want reducing the risk of work-related accidents to a minimum to be a priority for all of us.

WE ARE  
PROTECTING...

head protection

eye protection

breathing protection

hearing protection

work clothing

gloves

ergo

safety footwear

... from head to toe





REVOLUTIONARY  
RESPIRATORY  
PROTECTION



## CLEANSPACE2™

Powered P3 Respirator  
Light, with no hoses, belts or  
cables and no maintenance.  
Particulate and Gas Filters

- High dust sites – quarries, mining
- Welding, grinding
- Maintenance and cleaning
- Timber and agriculture



CE

## CLEANSPACE™ ULTRA

Powered P3 respirator  
With Rating P3 EU  
designed for use in  
decontamination showers

- Chemical handling
- Lead abatement
- Infectious agents
- Firstresponder



CE

## CLEANSPACE™ EX

Powered P3 respirator  
Intrinsically safe certified  
for use in potentially  
explosive atmospheres

- Underground coal
- Oil and gas
- Petrochemical
- Chemical handling



CE



# CLEANSPACE PROTECTS NOTRE DAME RESTORATION WORKERS

- Paris – 13 May 2019: As shown on ABC News CleanSpace Respirators are being worn by workers tasked with restoring Notre Dame just one month after a fire ravaged through the 850-year-old cathedral.
- The fire burned through almost two-thirds of the roof and some 400 tonnes of lead. As a result, workers are wearing protective suits and CleanSpace Respirators to protect themselves from contamination.
- Retired French Gen. Jean-Louis Georgelin, who is leading the restoration project, said the workers take regular blood tests to make sure their blood lead levels are still normal.



# CleanSpace2™

EVERY BREATH COUNTS

## CASE STUDY

QUEENSLAND NICKEL AND COBALT REFINERY



Positive pressure respiratory protection made simple

**Queensland Nickel** illustrates the challenges large industrial sites have when protecting their staff from hazardous airborne contaminants in the workplace. Based in the north east of Australia, the refinery employs 1,000 people and is a global leader in the production of high quality nickel and cobalt. The nickel and cobalt-bearing laterite ores are dried, ground, roasted and leached before being separated for sale to a global market. Despite system controls in place, the extraction process generates rogue nickel dust emissions of soluble and insoluble nickel forms with differing exposure standards requiring controls around personal respiratory protection.

Following an internal safety review, the **Queensland Nickel's** occupational hygienist examined a broad range of respiratory options with a focus on high levels of protection. Trials included passive P3 half masks through to Powered Air Purifying Respirators including loose and tight fitting headtops.

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## CASE STUDY

QUEENSLAND NICKEL AND COBALT REFINERY



Positive pressure respiratory protection made simple

### THE CHALLENGE

The challenge at the **Queensland Nickel's** site was maintaining compliance and productivity for staff wearing personal respiratory protection due to demanding requirements:

- **LONG PERIODS OF WEAR AND FLEXIBILITY:** Operators and maintenance staff needed protection for 6 hours (some up to 8 hours) on a daily basis wearing RPE. While, managers and engineers required RPE for short periods of time but needed ease of donning/doffing as they moved through the contaminated areas on site.
- **MOBILITY AND HIGH EXERTION TASKS:** The plant covers an area the size of a football field and has a high point of 6 levels up that can be reached via stairways. The physical layout and the vast network of kilns, conveyors and elevators needing routine checks, adjustments and sampling meant operators are highly active and require mobility around the equipment.
- **EXTREME WORKING TEMPERATURES:** Industrial rotating kilns contribute to temperatures in and around the plant of 45C.

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## THE SOLUTION

Negative pressure masks found staff struggling with acute discomfort from over-tightened straps and heat under the mask when worn for several hours. Many of the belt mounted positive pressure systems proved too restrictive for normal day to day tasks and were too bulky and difficult to carry when operating machinery or temporarily moving in and out of contaminated areas.

**“My maintenance and operating teams complained that the battery packs made driving forklifts difficult and head tops limited their head movement which is important when running equipment checks”** outlined *Matthew Topp, QNI Manager - Final Nickel.*





# CleanSpace2™

## EVERY BREATH COUNTS

## CASE STUDY

### INDUSTRY: QUARRY



**The cost effective way to increase employee respiratory protection compliance**

## THE CHALLENGE

Personal respiratory protection against small particle dusts, or toxic fumes that are non-visible and odourless, is one of the greatest occupational health and safety challenges facing heavy industry companies in their quest to ensure the everyday and long term health of their employees.

A major building and construction materials suppliers, with operations in Australia, US and Asia, recently re-addressed this challenge by examining their current respiratory protection program to see if it could be strengthened by introducing PAPRs without 'blowing the budget.'

The Company's two biggest concerns in using disposable and reusable half masks were compliance among employees in terms of uninterrupted, continuous use of the current respirators and the associated cost, not only in the turnover in disposable units and filters, but the financial impact of employee morale, productivity and absenteeism.

The Company's hard rock quarries have many workers who regularly confront hot conditions and dust hazards during daily working shifts. While negative pressure masks and disposable respirators were being worn to protect employees during the production and maintenance phases; the company still faced a number of challenges in maintaining a safe and cost effective working environment.

- Many employees working over long periods of time, were required to carry a range of equipment and personal protection equipment (PPE) during high exertion activity. Despite knowing the risks, in hot conditions there was a natural desire for some workers to seek relief from cumbersome or uncomfortable face masks by removing or constantly adjusting their masks.

- The disposable respirators also relied heavily on the wearer correctly fitting the mask, with subsequent reports from quarry workers that the masks were tight and uncomfortable, and contributed to safety glasses fogging up, another cause for workers to remove their masks.

- Disposable and reusable respirators created concerns over whether employees were replacing the disposables and filters as often as they should when the filters became dirty, and, in other cases, masks were being thrown away before they needed to be. This was significantly adding to the cost of the site's PPE program.



**“Although small, the respirator has an intelligent software system that delivers clean fresh air and is breath-responsive. The system adjusts the mask pressure and air flow to match that needed by the wearer regardless of how hard they are working. It’s a remarkably comfortable mask.” – Dr Alex Birrell, CEO, PAFtec**

**“We were surprised and pleased that when we projected out the cost of CleanSpace2 compared to use of our disposable respirators there was a significant reduction in our long-term costs on respirators when we switched to CleanSpace2. Every employee at our trial site now has their own battery charger, filter pack and mask,” – The Company’s Health And Safety Officer**



## THE RESULT

After trialing of the CleanSpace2, the Company's hard rock quarries quickly discovered that the employees preferred to wear CleanSpace2 over the traditional disposable dust masks that had been in use on-site for many years.

The employees said that the unit was more comfortable to wear, easy to use and simple to maintain. For the management team, this meant it was easier to implement and support the use of respirators in line with the site's mandatory PPE requirements.

The positive air pressure meant the silicone masks did not need to be tightly fitted against the face negating the need for regular fit tests. The site evaluation, supported by Portacount data provided by PAFtec Australia, clearly demonstrated the high protection factor of the PAPR vs APR.

The trial highlighted additional benefits from using CleanSpace2; including eliminating the problem of the safety glasses fogging up. Employees reporting less heat stress and that they were able to perform their daily tasks with greater ease as a result of the fresh airflow across their mouth, nose and face.

The Company also noted the filter blockage detection system, that alerts the wearer to replace the filter when the system detects a heavy particulate load, ensured employees maintained an effective level of filtering while eliminating costs associated with unnecessary filter changes.

From an environmental perspective, the Company says it feels proud that it is reducing its waste generation with the re-usable units.

To save costs even further, the Company found that the CleanSpace2 respirator unit, with its removable silicone masks, can be shared between staff members. By issuing each person with their own correctly sized facepieces, the powered unit being a closed circuit design means that the exhaled air will not travel into the powered section of the respirator unit. The air is exhaled out through the exhalation valve thus preventing the potential for the transfer of communicable pathogens between staff.

Since the initial trial, the Company's other Australian sites have witnessed similar improvements in safety, productivity and costs and with the support of Protector Alsafe, are now looking into implement the widespread use of the CleanSpace2 powered respirator at many of its quarry sites as a replacement for disposable respirators.

The CERVA logo consists of a small yellow horizontal bar above the word "CERVA" in a bold, white, sans-serif font, all contained within a black rectangular box.

**CERVA**

[www.cerva.com](http://www.cerva.com)



**VĂ MULȚUMESC !**

Valentina Ion  
Commercial Director

