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AUSTRALIAN MANUFACTURER PIVOTS EXPERTISE TO LEAD SUPPLY OF LIFESAVING VENTILATORS

Today the NSW Government announced that Ampcontrol is one of two NSW organisations to produce life-saving emergency ventilators in response to the COVID-19 pandemic.

Ampcontrol engineers designed and delivered the first functional emergency ventilator prototype to the John Hunter Hospital Simulation Unit for testing by specialist clinicians in just 18 days.

Production of 10 pilot ventilators will now commence undertaking further clinical assessment and testing with NSW Health, with the objective of enabling 600 ventilators to be rapidly built in the Hunter region if the need arises.

Ampcontrol Managing Director & CEO, **Rod Henderson** said, "We are so immensely proud to be able to do our part and lead this critical health project in the manufacture of emergency ventilator solutions. Knowing that our ventilator could help save lives in the fight against COVID-19 is incredible."

In collaboration with local clinicians and two Hunter-based specialist electrical engineering companies, Safeearth and NewieVentures, the brainpower of over 20 engineers across multiple disciplines worked around the clock to design and produce the emergency ventilator prototype.

To quickly accelerate its knowledge of ventilator systems, the team engaged with specialist clinicians from Hunter New England Local Health District and the University of Newcastle to guide solutions and minimise clinical and deployment risks, as well as coordinating with other groups working with NSW Health on other prototype ventilator solutions.

"We specialise in resources, infrastructure, and energy solutions, and what the team has achieved in partnership with clinicians in such a short timeframe is nothing short of outstanding and a testament to the engineering excellence and ingenuity in our country. We have been able to rapidly swing our world-leading expertise and production facilities into manufacturing critical emergency medical equipment right here in the Hunter."

We have such highly advanced manufacturing capability and ingenuity in our country. It is so important that industry and Government work together so that we can continue to produce innovative solutions and products here in Australia that make a difference to people's lives around the globe", Rod added.

Ends.

Australian owned and operated, Ampcontrol is a leading global manufacturer of electrical and electronic equipment in the resources, infrastructure and energy sectors. Founded in Newcastle NSW in 1968, Ampcontrol has grown to over 1000 employees across 30 operations around the world.

Media Contacts

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About the Ventilator Project “*Project Anemoi*”

- The name derives from ancient Greek religion and myth: the **Anemoi** (Greek: “Άνεμοι, “Winds”) were four wind gods each ascribed a cardinal direction from which their respective winds came.
- Led by Health Infrastructure, Project Anemoi is a Newcastle NSW based health project in partnership with:

Lead Innovation Partners

- [Ampcontrol](#)
- [NSW Health](#)

Research & Development Partners

- [Safeearth](#), [NewieVentures](#), [ResTech](#), [University of Newcastle](#)

Prototyping Contributors

- [Beckoff](#) (Oakleigh VIC), [Burkert](#) (Baulkham Hills NSW), [Siemens](#) (Bayswater VIC), [IFM](#) (Mulgrave VIC), [Linktek](#) (Queanbeyan NSW)

• Innovation & Development Team

- Dr. Ian Webster, Group Manager Engineering, Ampcontrol (Lead)
- Stephen Palmer, Managing Director, Safeearth
- Heath Raftery, Head of Technology, NewieVentures
- 15 – 20 Research & Development Engineers with over 150 years of combined experience in designing leading safety, environmental and protection products and solutions for the global resources sector
- Development Team engineering disciplines include; electrical, mathematics, mechatronics, software, automation, computer, industrial, environmental and mechanical

• Project Team

Health Infrastructure:

- Rebecca Wark, Chief Executive, Health Infrastructure

Biomedical:

- Ishaque Khan, Director Clinical Technology, Hunter New England Health (John Hunter Hospital)
- Paul Cookson, Deputy Director Clinical Technology, Hunter New England Health (John Hunter Hospital)
- Steve Threlfo, Biomedical Consultant, Anaesthetics and Ventilator Specialist

Clinical:

- Dr. Ken Havill, Intensive Care Specialist, Lead ICU/HDU/Retrieval Critical Care Stream, Hunter New England Health (John Hunter Hospital)
- Dr. Cate McIntosh, Director, John Hunter Hospital Simulation Unit
- Dr. Jorge Brieva, Director Intensive Care, John Hunter Hospital
- Dr. John Ferguson, Senior Staff Specialist Microbiology & Infectious Diseases, Hunter New England Health

Industry/Manufacturing:

- Rod Henderson, Chief Executive Officer & Managing Director, Ampcontrol
- Warwick Sommer, Chief Operating Officer – Mining & Infrastructure, Ampcontrol
- Tim Wylie, Chief Technology Officer, Ampcontrol

• Product Design

- The primary design focus of this project was the development of a simple emergency ventilator capable of meeting the Therapeutic Goods Administration standard as the ‘minimum viable product’ (MVP).
- It was not intended to be a replication of, or direct substitution for, a fully clinically approved ventilator (such as the units produced by ResMed).
- A critical element of the MVP design is the ability to be produced quickly and with minimised production and procurement risks.
- Focus was placed on sourcing key components (e.g. pressure and flow valves) from Tier 1 OEMs with industry proven products.
- Given the emergency nature of the ventilator and its potential to be used widely, the design includes large format touch screen as the primary interface between the ventilator’s functions and operator. The interface has been designed to be capable of displaying embedded training material to ensure the correct operation of the unit.

EDITOR NOTES

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About Ampcontrol

- Australian owned and operated, Ampcontrol is a leading global manufacturer of electrical and electronic equipment in the resources, infrastructure and energy sectors.
- Founded by four friends in a small shed in Newcastle in 1968, Ampcontrol has grown to over 1000 employees across 30 operations around the world.
- Ampcontrol co-founder, Peter Cockbain AM, is named by Engineers Australia as one of Australia's top 100 influential engineers and in 2015 he became a Member of the Order for Australia for his significant services to engineering.
- Locations include New South Wales, Queensland, Victoria, South Australia, Western Australia, Northern Territory, ACT, Asia, India, Mongolia, UK, and France.
- Consists of 6 member companies; Ampcontrol, Capttech, CPS National, ResTech, Verico Group, and Austech.
- Largest operation is located in the Hunter, NSW, with a combined manufacturing space totalling over 21,000sqm spread over 10 different sites.
- Developed the world's first IECEx certification for an explosion protected, hermetically sealed, nitrogen filled and pressurised mining transformer.
- Developed the industry's first 132kV emergency response mobile substation that has received RTA approval as a new special class type of vehicle due to its innovative design and ability to meet all road safety requirements.
- Developed Australia's first variable speed drive (VSD) installed on a longwall armoured face conveyor in Moranbah North Longwall.
- Designed and developed a breakthrough remote water treatment system that transforms undrinkable water into pure water. Pilot project currently installed in a remote indigenous community in Gillen Bore, Northern Territory.
- Multi-award winning engineering, design and innovation:
 - 2020 Australian Water Association NSW Water Infrastructure Project Innovation Award
 - 2019 Hunter Business Excellence Award for Innovation 'Gilghi'
 - 2019 Good Design Award winner for Product Design – Commercial and Industrial
 - 2019 Good Design Award winner for Engineering Design
 - 2019 Scottish Engineering Awards – President's Award winner
 - 2019 Lake Macquarie Business Excellence Award for Innovation 'Gilghi'
 - 2019 Mine Electrical Safety Conference Innovation Award for AFC VSD Moranbah North Longwall Project
 - 2010 Australian Engineering Excellence Award winners for a joint collaboration with Xstrata and Joy to develop the world's first 11,000 volt electrical system which is installed in a Hunter Valley mine