

# MHIAA'S Q-TON SYSTEM ELEVATES WARRIGAL AGED CARE IN WOLLONGONG

PROJECT : Warrigal Aged Care  
LOCATION : Wollongong, NSW  
COMPLETION DATE : August 2024  
CONTRACTOR : Eymael Plumbing

Systems Installed  
4 X ESA30EH2-25 Q-TON SYSTEMS  
8 X 1,000L STAINLESS STEEL TANKS

Warrigal Aged Care, a leading provider of aged care services in the Illawarra region, is committed to enhancing the living standards of its residents. The Wollongong facility, one of Warrigal's flagship locations with 155 rooms, offers a range of services including residential care, respite care, and specialised dementia care.

To maintain their high standard of care, Warrigal sought an innovative and sustainable hot water solution to meet the needs of their large residential population while reducing operational costs and minimising their carbon footprint.

Facing the challenge of maintaining a reliable and energy-efficient hot water supply, Warrigal's existing natural gas system had become increasingly expensive to operate and maintain. The facility required a system capable of meeting high daily demand while being energy efficient and environmentally friendly. The challenge was compounded by the need to retrofit the new system into the existing infrastructure with minimal disruption to the facility's operations.

After thorough consultation with facility management and Eymael Plumbing, the installing contractor, Mitsubishi Heavy Industries Air-Conditioners Australia (MHIAA) provided the perfect solution: the Q-ton air-to-water heat pump system.

Renowned for its high efficiency and environmental benefits, the Q-ton uses CO<sub>2</sub> as a refrigerant—a natural, eco-friendly alternative to traditional refrigerants. This allows the system to deliver reliable hot water between 60°C to 90°C even in temperatures as low as -25°C.

“Warrigal has been transitioning away from fossil fuels, so this is another important step for the company.” Says Penelope Morton, Sustainability

Officer at Warrigal Aged Care. “Whilst being more sustainable and allowing for more of our energy needs to be offset by renewables, these Q-ton systems have also been a much more reliable source of hot water for the facility, significantly reducing system breakdowns and hot water outages for our residents.”

Paul from Eymael plumbing also highlighted the system's flexibility with regards to installation. “Even with the system having to be retrofitted, it was easy to install and setup.” One standout feature of the Q-ton system which is highly relevant to the aged care industry, is its inbuilt legionella sanitary cycle, which heats the water to a temperature that effectively eliminates legionella bacteria—a key health concern in aged care facilities. This cycle not only ensures compliance with stringent health regulations but also provides peace of mind to the facility's management and residents, knowing that the hot water system contributes to a safe and healthy environment.

Since the installation of four Q-ton systems and eight 1,000L stainless steel tanks, Warrigal Aged Care Wollongong has experienced several significant benefits:

**Energy Efficiency:** The facility has achieved notable reductions in energy consumption, leading to lower operational costs. The Q-ton's high coefficient of performance (COP) of 4.3 during intermediate seasons translates into substantial energy savings, making it a cost-effective solution for the long term.

**Environmental Impact:** By utilising CO<sub>2</sub> as a refrigerant, the Q-ton system has substantially reduced Warrigal's carbon emissions, aligning with the facility's commitment to sustainability. This change not

only lowers the environmental footprint but also supports Warrigal's broader goals of enhancing community and environmental health.

**Reliability:** The Q-ton system has proven to be reliable, delivering a consistent hot water supply even during peak demand periods. This reliability is crucial for maintaining the high standard of care expected at Warrigal Aged Care.

**Cost Savings:** The combination of energy efficiency and reduced maintenance needs has resulted in significant cost savings, allowing the facility to allocate resources to other areas of resident care and facility improvements.

By prioritising sustainability, efficiency, and resident safety, MHIAA and Warrigal Aged Care have set a new benchmark for hot water solutions in the aged care sector. This partnership not only enhances the quality of life for residents but also supports a greener and more cost-effective future for the facility.



Scan the QR code to learn more about Q-ton



For more information contact Mitsubishi Heavy Industries Air-Conditioning Australia, Pty Ltd., phone 02 8774 7500, mhiaa.com.au