

## Fletcher Insulation Helping Modernise A Health Icon

The Royal Hobart Hospital has been helping keep Tasmanian's healthy for over two hundred years. The \$680 million redevelopment will provide significantly increased health services to the Hobart Community. These services include the construction of a new K-Block designed to improve and increase in-patient facilities for general medicine, surgery, paediatric and birthing. The inclusion of a new hyperbaric chamber will provide over 2,000 treatments a year for a range of specialist medical treatments such as radiation injury and diabetic wound care.

To be completed in 2019, the redevelopment of the hospital is Tasmania's largest ever health infrastructure project, transforming the hospital into a modern health facility, and providing a new benchmark in health care.

Maintaining and revitalising such an important community facility is a major undertaking and one that Fletcher Insulation is pleased to be part of.

### The Royal Hobart Hospital

The redevelopment encompasses a transformation of Australia's second oldest hospital into a modern health facility for Tasmania.

The project has involved a three-stage redevelopment incorporating upgraded infrastructure and capital works, a new cancer centre and a new inpatient precinct known as K-Block.

The new K-Block with a single dedicated arrivals and departure area and new helipad means patients receive better care, sooner. It also enables the hospital to increase the number of patients treated, raising the number of acute treatment beds by 55% from 446 to 695.

The new building will reduce carbon emissions and improve energy efficiency whilst also improving patient comfort and wellbeing in a new, modern facility.

### The Contractor's Challenge

Thermal Insulation Contracting are a leading Tasmanian industrial and commercial insulation contractor. This project represented a major construction challenge for the firm due to the scale of the redevelopment, the fast build time and the amount of resources required.

Hospitals are complex working environments, with expansive insulation requirements within the structure and across the HVAC&R services. The new 39,000 m<sup>2</sup> K-Block facility required over 27,000 m<sup>2</sup> of insulation for the HVAC ductwork.

The engineering specification called for ductwork to be externally insulated. An advantage of externally lagged ductwork includes eliminating the risk of fibre contamination in the supply air stream, particularly in environments requiring tight air quality control such as health care environments. It also provides greater flexibility during construction, visual inspection of the insulation's structural integrity and lower manufacturing costs.



View of K-Block from Campbell Street Entrance  
(source: Royal Hobart Hospital Project)

### Testimonial

*"We always use Richard and Gary from Fletcher Insulation. As the biggest supplier in Hobart, they are our go to team for projects and are fantastic to deal with"*

*Mr Jared Daw, Director Thermal Insulation Contracting.*

Whilst this was Thermal Insulation Contracting's first project using F122 Ductwrap, the firm has had a long-standing relationship with Fletcher Insulation, working closely with the local team to ensure the right product selections up front and support throughout the installation process.

## The Fletcher Insulation Product Solution

The key to Fletcher Insulation's approach is ensuring the right solution for our client's projects, whether it's thermal performance, acoustic control, condensation prevention, indoor environment performance, or fire resistance.

For the RHH project, Fletcher Insulation's local team worked with the team at Thermal Insulation Contractors to understand the specific project performance requirements and selected the best products to meet these requirements.

As part of the design solution Fletcher Insulation recommended and supplied the following products:



Fletcher Insulation Product	Location	Application
FI22 Ductwrap R1.2 41mm faced with Sisalation® Heavy Duty 450 Facing Foil	Supply air duct work in conditioned spaces such as offices.	Thermal Performance, Condensation Prevention
FI22 Ductwrap R1.5 50mm faced with Sisalation® Heavy Duty 450 Facing Foil	Supply air duct work in conditioned spaces such as offices and operating theatres.	Thermal Performance, Condensation Prevention
FI22 Ductwrap R2.0 75mm faced with Sisalation® Heavy Duty 450 Facing Foil	Supply and exhaust air duct work in un- conditioned spaces including plant rooms.	Thermal Performance, Condensation Prevention

## Product Specification

The FI22 Ductwrap Insulation range is a flexible glasswool blanket and the ideal choice as an external lagging for fabricated air conditioning ductwork where thermal performance and condensation management are required.

The use of Sisalation® Heavy Duty 450 Facing Foil adhered to FI22 Ductwrap Insulation is ideally suited to applications where high tear strength and puncture resistance are required in addition to a high degree of flexibility without delamination of the aluminium foil.

Sisalation® 450 Heavy Duty Facing Foil is a class 1 vapour barrier and has a very low permeance to water vapour and other gases, which makes Sisalation® products ideal for HVAC ductwork applications. The strong and durable vapour barrier helps prevent fibre erosion of the glasswool insulation lining.

	<b>Thermal Performance</b> Fletcher Insulation products comply with thermal performance (AS/NZS 4859.1:2002 including Amendment 1).
	<b>Acoustic Control</b> For projects requiring high levels of acoustic control such as medical rooms, concert halls, studios and auditoriums, Fletcher Insulation has a range of facing options with superior noise reduction properties.
	<b>Condensation Control</b> Fletcher Insulation has a range of facing options which provide superior water and vapour transmission prevention providing long term durability against condensation.
	<b>Indoor Air Quality</b> Sisalation® Heavy Duty 450 Facing Foil protects the glasswool fibre blanket, preventing loose fibres entering the atmosphere, limiting dust build up and assisting with inspection, cleaning and maintenance.
	<b>Fire Resistance</b> Fletcher Insulation products are fire rated according to Combustibility (AS/NZS 1530.1:1994), Ignitability, Flame Propagation, Heat Release and Smoke Release (AS/NZS 1530.3) and UL181.11 Burning Test (AS 4254:2002).



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