

# Schwank Case Study: Flying High on Schwank's Infrared Efficiency



*"The heating levels in our facilities are very comfortable and cope well with the changes in weather that we experience. We are very happy with Schwank".*

Mark Butchart,  
Production Manager,  
Air Nelson



## The Facility

Air Nelson is a wholly owned subsidiary of Air New Zealand operating under the Air New Zealand brand. The airline was started in 1976 and began its first scheduled service in 1984 to connect to Wellington. The network then grew to include Nelson, Wellington, Auckland, Christchurch and other domestic destinations.

In 1995 Air New Zealand purchased Air Nelson, which now operates 23 Bombardier Q300s being the world's largest operator of this type of aircraft. Air New Zealand recently invested 30 million dollars at Nelson airport in order to expand on its infrastructure to include modern maintenance facilities for its commuter airlines. Today also the entire ATR-72 aircraft fleet of Mount Cook Airline, also part of the Air New Zealand network, is being serviced at the Nelson facilities.

## The Issue

Energy efficiency, longevity, controllability, quick reaction times and flexibility were all extremely important. Planes coming in and out regularly create high air changes due to the frequent door openings. Furthermore, cold incoming airplanes act like ice blocks making the environment very challenging for conventional heating systems. To compensate for these sudden "shock" heat losses and to provide homogenous heat distribution in the hangars was an imperative requirement for the Air New Zealand technical department.

Air New Zealand's appointed consulting engineers, Pacific Consultants from Wellington, then had the task of specifying a system that was suitable to meet the requirements for both hangars. Working together with Schwank's exclusive partners in New Zealand, Energy Products, Schwank gas fired radiant tube systems were selected for both facilities.



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## The Implementation

After choosing Schwank to supply the heating system for the Nelson facilities, infraSchwank radiant tube heaters were installed to meet the challenges as previously described.

The heaters were shipped effortlessly to New Zealand by Air New Zealand Cargo and arrived in a fraction of the normal delivery lead times at the facility. All the heaters are arranged in multiple heating zones within each hangar. As no natural gas is available on New Zealand's South Island, the heaters operate on LPG. The installation and commissioning was carried out by local approved gas engineers. Good comfort levels, multiple zone capabilities and high radiant efficiencies have resulted in low energy costs.

## Results

The results - financial, operational and environmental - of installing the high efficiency Schwank gas fired radiant heating systems have all been excellent and positive.

The systems are very flexible due to the various individual heating zones. The ground staff is delighted with the excellent working conditions and the low annual running costs. The heating is instant and the design temperatures are easily maintained within the working areas. The systems are serviced on an annual basis to keep the heaters working at their optimum and will ultimately prolong their working life.

Other Schwank aviation references include: United Airlines, Delta, UPS, EADS, WestJet, Air Berlin, Virgin Atlantic, Jet Aviation, Piper, Bombardier and US, Canadian and Chinese air forces.



**Schwank**  
INNOVATIVE HEATING SOLUTIONS



### United Kingdom

**Schwank Ltd**  
Suite 21, 50 Churchill  
Square Business Centre,  
Kings Hill, West Malling,  
Kent ME19 4YU

Tel. +44 (0) 208 641 3900  
Fax +44 (0) 208 641 2594

sales@schwank.co.uk  
www.schwank.co.uk

### Ireland

**Eurogas Ltd**  
Unit 38B, Southern Cross  
Bus Pk, Boghall Road,  
Bray, Co Wicklow

Tel. +353 1 286 8244  
Fax +353 1 286 1729

info@eurogas.ie  
www.eurogas.ie

### Australia

**Devex Systems Pty Limited**  
5/83 Bassett St  
Mona Vale NSW 2103

Tel. +61 02 9997 2811  
Fax +61 02 9997 7852

info@devexsystems.com.au  
www.schwank.com.au

### New Zealand

**Energy Products Int.**  
30 Gallagher Drive,  
Hamilton West 3243,  
Hamilton

Tel. +64 7 839 2705  
Fax +64 7 834 4212

sales@energy-products.co.nz  
www.energy-products.co.nz