

Temperzone invests in online presence on both sides of the Tasman.



The launch of the new Temperzone.com.au and Hitachiaircon.com.au websites in the last week means that all the major Temperzone websites in Australia and New Zealand have been completely redesigned and rebuilt in the last few months. This substantial investment in online presence is recognition of the importance of the internet in today's world for both business to business and business to consumer communication. It is important to note that all of the sites are now built on flexible content management platforms that will ensure that the content is continually increased and updated.

IN FACT YOU CAN TRACE THIS PROCESS OF ONLINE RENEWAL BACK 18 MONTHS, TO THE LAUNCH OF TEMPERZONE NEWS. YOU MAY BE INTERESTED TO KNOW THAT THE ONLINE MAGAZINE YOU ARE NOW READING IS EMAILED TO OVER 10,000 PEOPLE IN THE AUSTRALIAN AIR CONDITIONING INDUSTRY EVERY 2 MONTHS.

Without doubt the best way to get an idea of what the new websites offer is to visit each of them.

Temperzone.com.au and Hitachiaircon.com.au are

both primarily consumer focused sites. In an indication of the strength of the Temperzone - Hitachi strategic alliance both sites present the combined domestic product range. The sites also use state of the art geo-location in their dealer locator and have a direct to dealer lead generation system.

Trade customers have not been forgotten with the introduction of Trade portal in the main Navigation bar of Temperzone.com.au. This takes you to a page with single click links to all of the Temperzone Trade related websites including Temperzone.biz, Temperzone news and the Hitachiaircon commercial site.

The Temperzone.biz website remains the primary source of technical information on all products distributed or manufactured by Temperzone. The new site which went live in early July has a completely revised structure and navigation. If you have found Temperzone.biz a bit hard to navigate around in the past you will be impressed with the new site. The navigation system now is very friendly with a comprehensive search capability in the product area. This makes finding technical information on any product a breeze.

PLEASE NOTE WHEN YOU VISIT THE NEW SITE FOR THE FIRST TIME YOU WILL NEED TO RENEW YOUR LOGIN REGISTRATION AS LOGIN DETAILS FROM THE OLD SITE DO NOT CARRY FORWARD TO THE NEW ONE.

The New Zealand consumer site Temperzone.co.nz has also had a complete overhaul. This new site gives Temperzone NZ a contemporary and very user friendly web interface.

With universally available very high speed broadband just around the corner the importance of email and internet as the key communication and marketing medium will only increase. Temperzone have invested in online systems on both sides of the Tasman that will give greater flexibility and visibility to the Temperzone brands well into the future.

Testing times with new refrigerant



Temperzone was at the forefront of the move to the new, environmentally friendly R-410A refrigerant. Unlike the earlier R-22 refrigerant, R-410A doesn't contribute to ozone depletion. But its adoption didn't come with some challenges, says Temperzone's General Manager in Australia, John Barlow.

One of the best remembered laws of physics from everyone's school days is Newton's Third Law. 'For every action, there is an equal but opposite reaction'. This law might not literally apply to leak testing with R-410A refrigerant, but there's no doubt that air conditioning companies have had to react to the introduction of the new R-410A gas in various ways.

John Barlow says that leak testing methodology is a typical example. "We had to rethink the way we tested for leakage with the new refrigerant," says John, "because the old methods simply didn't tell us what we wanted to know. You could use the traditional means of pressure testing under water and get a perfect result – yet the reality was that the leak in fact existed."

IT'S IN THE PHYSICS

The reasons lie in the underlying physics of the R-410A molecule. The R-410A atom is considerably smaller than the R-22 atom. John continues,

"IN LINE WITH TEMPERZONE'S COMMITMENT TO QUALITY, IN OCTOBER 2009 WE UPGRADED OUR LEAK DETECTION PROCESS FROM PRESSURE TESTING TO A NEW ALTERNATIVE HYDROGEN SENSING TECHNOLOGY."

John Barlow says that the new leak testing protocol is similar to the electronic trace element testing used by airlines searching for fuel leaks on aircraft. "Being the smallest atom, Hydrogen makes an excellent tracer gas," he says. "It is transported very quickly in any atmosphere, which allows for faster leak detection."

A SAFE OPTION

Naturally, the safety of testing procedures is paramount to Temperzone. John says that at concentrations of less than 5%, Hydrogen is renewable, non-poisonous and perfectly safe. The concentration used by Temperzone is a 5%Hydrogen / 95% Nitrogen gas mixture, which is available as standard mixture in Australia – so it's both effective and practical.

In fact, the technology has been well-tested overseas and is, as it happens, the process used by Hitachi in its Malaysian, Chinese and Japanese factories.

"THE BOTTOM LINE FOR TEMPERZONE CUSTOMERS," SAYS JOHN, "IS THAT WHETHER IT CARRIES THE TEMPERZONE OR HITACHI BRAND NAME, OUR CUSTOMERS CAN BE REASSURED THAT THE VERY BEST LEAK TESTING TECHNOLOGY FOR R-410A REFRIGERANT HAS BEEN USED BY ITS MANUFACTURER."

Winning the space race ... and delivering better service

Temperzone has made major investments in Brisbane, Sydney and Melbourne with one thing in mind. Getting products and parts to customers who need them, when they need them. The good

news is that the expansion program is already paying dividends to all stakeholders.

This story starts in Sydney. Australia's largest city has been Temperzone's local head office for many years.



The growth has been considerable. The Bessemer Street, Blacktown office and warehouse has been expanded on numerous occasions, eventually outgrowing its potential. The short-term fix was to rent additional warehousing nearby, says Temperzone's General Manager in Australia, John Barlow, but it was only a matter of time before a more permanent solution to housing the growing company's national head office would have to be found.

The decision was made to move. But as it turned out, not to move very far at all: from 7A Bessemer Street... to 35 Bessemer Street. According to John Barlow, the move has several advantages. "For starters, we'll be back under one roof," he says, "meaning that manufacturing, warehousing and dispatch will all take place in the one location. Improved communication is certain to be one of the benefits of the move, and we will also eliminate the need for third party warehousing in peak periods."

ROOM TO GROW

The new Australian headquarters will certainly provide Temperzone with a lot more room to move – and grow. Compared with the old 11,400m² premises and rented 3,000m² warehouse, Temperzone has acquired a massive 17,200m² in one complex. The new national distribution centre is already up and running, and it won't be long before the administrative offices and manufacturing facility move to 35 Bessemer Street as well. The planning phase is virtually complete, council approvals have been gained and ground has already been broken for the construction of new office accommodation.

Apart from its physical capability to handle B-Doubles with ease, the new complex offers several advantages. John Barlow says that over three kilometers of piping

through the factory allow for the reticulation of natural gas, nitrogen and compressed air. The result: the need for cylinders of gas and nitrogen is eliminated, and compressed air is available wherever it is needed throughout the factory.

The next stage in the transition to the new premises will occur when \$2.5 million worth of new sheet metal working machinery arrives later in the year. "We're really looking forward to the consolidation of all Sydney operations to one site," says John, "because it will ensure that Temperzone's level of customer service will remain number one in the industry."

EXPANSION IN OTHER STATES



Temperzone's expansion in Sydney has been complemented by similar investments in Melbourne and Brisbane.

In Melbourne, we're celebrating our first anniversary in a substantial new office/warehouse complex four times the size of the previous premises. State manager Vic Cocks says that the new warehouse can handle two B-Doubles end-to-end simultaneously. He adds that word has quickly spread that Temperzone's product availability has improved – and increased sales has been the result. "With our

increased warehouse capacity, we now receive imported product direct from Temperzone and Hitachi," he says, "which eliminates the costs and time involved with double handling. More importantly, it means that customers generally receive product within 24 hours of placing an order."

IT'S THE KIND OF TURNAROUND THAT CAN MAKE A

SALE – AS PROVED TO BE THE CASE RECENTLY.

A MAJOR OIL COMPANY PLACED AN ORDER WITH TEMPERZONE IN MELBOURNE ONE FRIDAY MORNING, KNOWING THEY WOULD RECEIVE DELIVERY IN TASMANIA THE NEXT MONDAY. VIC COMMENTS, "IN THE PAST, DELIVERY MAY NOT HAVE OCCURRED UNTIL THE WEDNESDAY OR THURSDAY, AND IN THIS CASE, IT WAS A MAKE-OR-BREAK FACTOR IN ACHIEVING THE SALE."

Another bi-product of the past year's growth in Victoria has been the increased staff levels to deal with demand. The crew now includes five sales engineers and two sales support staff. But with four team members having over 15 years experience with Temperzone, there's plenty of experience to draw on. "Morale in the branch is at an all-time high," says Vic, "so it's a pleasure to come to work every morning."

GROWTH TO THE NORTH

Temperzone has also invested in new and larger premises in the Brisbane suburb of Tingalpa. State manager Shane McBride says that the new office and warehouse facility offers over 1,000m² of stock holding capacity, and that greatly improved customer response time is the result. Just like its Melbourne

counterpart, imported product from New Zealand, Malaysia and Japan now comes straight to the State branch, cutting time and possible damage to stock-in-transit. "Holding stock of units up to 60kW certainly gives us an edge," says Shane, "as the notion of a supplier holding stock of this capacity away from their manufacturing base is almost unheard of."

Shane says that having such a large amount of stock and products on hand is great for service companies who need to get HVAC plant operational as soon as possible. "They now have the option to replace units on a same day basis, rather than having to wait up to 48 hours for a part from some manufacturers," he comments. "On smaller units, it is often more economical to replace the outdoor unit than the compressor, so we're in the perfect position to win new business." Shane says that improved stock availability is also important where commercial tenancy fitouts are concerned. In many cases, air conditioning upgrades need to be completed after hours in time for a new tenant's planned move-in date. Contractors now know they can order units on a same-day delivery basis in many cases.

"We encourage new and existing customers to call in and see our new premises and collect their order at the same time," says Shane, "because we're confident that when they've seen our facility first hand they will be totally confident in dealing with us."

The investment in new, larger and superior premises in New South Wales, Victoria and Queensland represents a major investment to Temperzone, but one that is already paying dividends. "We have absolute confidence in and commitment to the Australian market," concludes John Barlow, "and these new facilities prove it. But the most important thing is the impact on our customers – and better service from shorter lead times is the real benefit to them."

Temperzone quietly kicks a goal for rugby fans

The new 260-room Novotel Auckland Airport Hotel will open its doors in time for the 2011 Rugby World Cup. When it does, guests should be in for a good night's sleep... because Temperzone is playing an important part.

The Kiwis can be justly proud of Auckland Airport. However, while it was judged one of the ten best airports in the world in 2009, until now there has been one important facility unavailable for travellers. The airport's management team realised there was significant demand from the tourism industry and travellers for a hotel in the airport terminal precinct.

That will soon change with the opening of the Novotel

Auckland Airport. The hotel, a joint venture between Accor Hospitality, Tainui Group Holdings and Auckland International Airport, is already under construction and should deliver yet another string to the bow of to the highly regarded Auckland Airport.

QUIETLY WORKING BEHIND THE SCENE

In every great hotel, the comfort of guests is of paramount importance. That's where Temperzone became involved. Temperzone was originally approached by the joint venture's mechanical services consultant. The consultant wanted to know whether Temperzone could offer a fan coil unit that would be highly energy efficient and, most importantly,



extremely quiet. At the same, the technology still had to represent value for money in the market.

Temperzone had been exploring the value in deploying Electronically Commutated Direct Current (ECDC) motors, in terms of the controllability and efficiency of the motor. The Temperzone engineering team responded promptly. Tests were conducted on a newly developed motor installed in a traditional low height fan coil unit – similar to those often used in Hotels and hospitality venues. Further testing involved the new motor combined with some additional acoustic insulation to reduce reverberant noise on the return plenum.

The result is a unit that is considerably quieter than anything we have produced, and considerably more energy efficient, . It is ideal for the new hotel building which itself is heavily acoustically insulated. This creates a very high level of thermal insulation, and means the units will be predominantly operating in cooling mode, with very low requirement for heating.

The new fan coil has the ability to control the fan speed from as low as 500rpm up to 1400rpm using either a 0-10v control signal, or a traditional three speed fan setting via dip switches.

THE NEW UNITS WILL BE UTILISED IN EACH OF THE 260 ROOMS IN THE HOTEL, MAKING IT A SIGNIFICANT DEPLOYMENT OF NEWLY UPGRADED TECHNOLOGY.

WORLD CLASS WELCOME

When completed, the new Novotel Auckland Airport will offer a world-class hotel of 4-star plus quality on the perimeter of Auckland Airport. Its completion in time for the Rugby World Cup 2011 will provide long-haul travellers with a welcome opportunity to

recover from their journey – not to mention a typical warm and friendly New Zealand welcome. New Zealand developer Tainui is the lead developer and investor in the joint venture, with Auckland Airport holding a minority interest. The completed hotel will be managed by the internationally renowned Accor Group.

It's no small undertaking, with a total forecast completed cost is \$65million including hotel construction estimated at approximately \$45million. Designed by Warren & Mahoney Architects, the Novotel Auckland Airport's design incorporates subtle references to NZ culture and heritage, offering style, convenience and a great first and last impression to travellers. In addition to the 260 international standard rooms, the hotel will provide first-class conference facilities.

It is believed that the hotel will also generate considerable long-term economic growth and provide many new jobs for the Auckland region. The hotel will assist Auckland and New Zealand tourism and trade by providing a global gateway to Auckland, enhanced by its authentic and unique New Zealand character, underpinned by the outgoing personalities of the local staff working in the facility.

The Novotel Auckland Airport is a major project for the city and everyone in the Temperzone team has enjoyed working on the hotel and coming up with a truly innovative solution to the challenges it offered.

There is only one limit to the hospitality on offer in 2011. There wouldn't be a single Kiwi who would be keen to see the World Cup slipping through the hotel or the airport after the series is complete.

Smooth operators in South Australian hospitals



There are few air conditioning installations where reliability is more critical than in hospital operating theatres. That made Temperzone the obvious choice when four South Australian hospitals upgraded their facilities in the last twelve months.

Running a hospital can't be easy. Meeting the demands of patients and the nursing and medical staff, maintaining the highest levels of hygiene and living within budgetary requirements is a challenging management role. One area where there's no room for compromise is in the hospital's operating theatre.

That's why four South Australian hospitals recently upgraded the air conditioning servicing their operating theatres, says Ryan Wijayasekera, Temperzone's local State Manager. "We were delighted to be the chosen supplier for Glenelg Community Hospital, South Coast District Hospital, Bordertown Hospital and Kangaroo Island Hospital," says Ryan.

"Temperzone has built its reputation on robust engineering, which makes our units ideal for hospital applications," says Ryan. "These units are required to work at any time of the day. Maintaining a fairly constant temperature in the theatre is equally important, because of the high tech equipment in the room." Ryan says that this requirement – along with the need for fairly high capacity combined with low airflow – gave us a distinct technology edge. "That's because our stage 1 digital scroll compressor is an

ideal way to achieve everything required of the units."

DIFFERENT SOLUTIONS FOR DIFFERENT OPERATIONS

Interestingly, the hospitals at the Bordertown and Kangaroo Island hospitals were standard units, while those supplied to Glenelg and South Coast hospitals were custom built.

"For the first two of these installations were based on our latest digital scroll technology. They utilised standard twin compressor – stage 1 digital units with minor factory modifications mainly in the area of the supply fan," says Ryan. "Operating theatres require a high level of air filtration," explains Ryan.

"WE USE HPEA FILTERS WHICH OFFER VERY HIGH RESISTANCE TO THE AIRFLOW. AS A RESULT, THE SUPPLY AIR FANS FOR THESE APPLICATIONS GENERALLY NEED TO BE UPGRADED TO COPE WITH THE STATIC PRESSURE WHICH IS GENERALLY ABOVE 500-600PA."

The solution depends on the individual application, but usually involves the fitting of a larger motor or pulley upgrades – or both.

The installations at the Glenelg and South Coast hospitals were, on the other hand, custom built units. "The installations at both of these hospitals



were based on our previous product range and took advantage of Temperzone's custom-build capability," says Ryan. The specification of the units was changed significantly and included compressor downgrades, modified coils and HP control.

The differences in the solutions applied also highlights the way in which features previously fitted as options have been standardised across much of the Temperzone range. The use of the digital scroll compressors in the 26kW and 44kW size units required at the South Australian hospitals is a case in point. However, the addition of head pressure control and outdoor unit controller boards that monitor and manage the refrigeration system also represent significant advances.

DIGITAL SCROLL MAKES THE DIFFERENCE

Ryan Wijayasekera says that additional safety features have been standardised as well. "But the move to digital scroll compressors is the huge leap

forward," he says. "These units have two compressors, Stage 1 being digital scroll and Stage 2 being fixed speed. The digital scroll compressor is able to control the room conditions far better than a fixed speed unit. They are able to control the output of the system and therefore maintain a linear temperature line within the conditioned space. The way Temperzone has designed the operation of these systems, the units are capable of running down to 40% or 50% of their total capacity.

The new Temperzone units will certainly make life easier for the hospital administrators, as they are capable of being run from the institutions' building management systems. "The bottom line is that in the future, systems without this ability won't meet the basic requirements for installations like these," says Ryan.

RYAN CONCLUDES, "THE INSTALLATION OF THEIR NEW TEMPERZONE AIR CONDITIONING UNITS HELPS IMPROVE BOTH THE WORKING ENVIRONMENT FOR MEDICAL STAFF AND THE LEVELS OF PATIENT CARE PROVIDED. BUT FROM A TECHNICAL POINT OF VIEW, IT'S INTERESTING TO NOTE HOW QUICKLY OUT TECHNOLOGICAL ADVANCES HAVE ENHANCED OUR ABILITY TO NOW SUPPLY A VIRTUALLY STANDARD, OFF-THE-SHELF UNIT FOR APPLICATIONS THAT REQUIRED A HEAVILY CUSTOMISED UNIT IN THE RECENT PAST."

Temperzone gets into hot water with new alliance

Hardly a week goes by without another story in the media about rising energy costs. Electricity prices are going up and natural gas or solar not always an alternative. A New Zealand company has been at the forefront of a different technology... and Temperzone announced an alliance with them in May 2010.

What is this "different" technology? It's called heat pump water heaters, and a New Zealand company called Hot Water Heat Pumps Ltd has been working on its development since 1980. Marketed under the name 'Performance Plus', the company has an outstanding reputation for quality, service and reliability, says Todd Parkin, Divisional Manager, MHI & Water Heating at Temperzone in New Zealand.

"Recently, Hot Water Heat Pumps Ltd and Temperzone Ltd signed an agreement for Temperzone to manufacture under licence the Performance Plus DHW7G01 heat pump water heater for potable hot water applications," says Todd. The unit in question is intended mainly for the New Zealand residential markets and is known for its efficiency and quality. "When we enter a joint venture, it's critically important to ensure that both companies are committed to the highest standards," says Todd. The Performance Plus product embodies the quality reputations of both Hot Water Heat Pumps and Temperzone. Todd adds, "The synergy with Temperzone is simple: the heat pump unit utilises one of our standard air conditioning units."

DIVING INTO NEW MARKETS



Kevin Trigg, Sales and Marketing Manager of Hot Water Heat Pumps Ltd, says the company came to the water heater business through their core business as manufacturers of high quality swimming pool heating. With this background, they are well positioned to develop products not only for domestic, but also for larger commercial applications.

Kevin says that 'Performance Plus' Hot Water Heat Pumps are designed to maintain water temperatures up to 60°C. They can also act as an energy saver up to 50-55°C with an electric booster to bring the water temperature up to the desired level. "They are made to operate in conditions found almost anywhere in Australia or New Zealand," says Kevin. "They can function in very low ambient temperatures, like those found at Mount Kosciusko... or Mount Hutt for that matter."

QUALITY REPUTATION

Kevin says that Hot Water Heat Pumps Ltd works hard to maintain its reputation for quality. From the epoxy coated evaporator coils to the use of galvanised steel and polyester powder coating, the products are designed for high corrosion resistance – even in coastal applications.

"EVERY COMPRESSOR, CONTROLLER OR FAN WE SPECIFY HAS TO BE ABSOLUTELY TOP QUALITY," SAYS KEVIN. HE ADDS, "THIS MAKES OUR CUSTOMERS THE BIG WINNERS. WHEREAS MANY WATER HEATERS HAVE A LIFE EXPECTANCY OF 10 YEARS OR LESS, OUR UNITS NORMALLY LAST 12 TO 15 YEARS – AND IN MANY CASES, FAR LONGER THAN THAT."

AUSTRALIAN DIRECTIONS

While the potential in domestic markets for heat pump hot water remains untapped, Temperzone will concentrate on commercial applications in Australia. Sales Engineer, Damian Walsh, says that heat pump hot water units have consistently proven 60% cheaper to run than conventional electric hot water heating which utilises electric elements.

"NOR DOES IT WASTE ENERGY AT THE RATE OF NATURAL GAS WATER HEATING," HE ADDS, "BEING 60 TO 70% MORE EFFICIENT."

Damian explains that heat pump hot water units work by absorbing the energy around them. "When they are installed in environments such as commercial plant rooms – where a great deal of ambient heat is generated – they are particularly effective," he adds.

Along with the entrenched position of a major supplier, this explains the decision to concentrate on commercial applications in Australia. Damian says that with these applications, the payback time for the investment required is generally around three years, but can be as little as 18 months to two years. "This makes it the ideal technology for organisations in many areas of business or community service," he says. Supermarkets, convenience stores, restaurants, hospitals and schools are among the end users to be approached by Temperzone in Australia. Indeed, among the company's first potential customers is a major retail chain, which is considering the technology as a source of renewable energy credits in rural areas where natural gas isn't an option.

"We believe the potential for heat pump hot water units is enormous," says Damian Walsh. "This new alliance is sure to open up many doors for us."