

COOL PARTS NEWS

Issue 1 August 2005

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Foreword from GM

Remember the 'good old days' where commercial refrigeration systems operated on R502 or R12; air conditioning systems operated on R22; Halide leak detector suited all refrigerants; one standard in copper pipe wall thickness - those were the days! Or were they? Were we socially responsible? Perhaps we didn't know any better.

Today, consumers are demanding enhanced, superior, cheaper products. Manufacturers are having to rise to the challenge with ever increasing production outputs, more advanced technologies and greater efficiencies. Ecologists and conservationists on the other hand, forecast disaster for the planet due to the ever growing consumption of irreplaceable raw materials, abuse of ozone causing depletion, global warming substances and rising electrical consumption. And we, the HVACR industry are caught right in the middle! We face ongoing economic and technological challenges, inevitable change but this presents opportunities for creative new-thinking in search of practical, sustainable solutions like retrofitting refrigerants with new and more efficient cocktails; alternative refrigerants such as CO2... and so it goes on.

"Saving our World" should be sufficient incentive for change to be taken seriously; it should be the main catalyst for change, and should be embraced by the whole industry. Sounds like Utopia - but it is worth making every effort.

We trust the "Cool Parts" bi-monthly newsletter and our technical articles will be of interest to you and that in a small way, we are contributing to change required to generate a greater degree of social responsibility and make the globe a better place for future generations - by bringing new technologies, new products and best practices to you.

Thank you for your support.
Robbie Hunt, GM - Realcold Components

The Realcold - 2005 Cool Parts Tour



Early June saw Refrigeration Engineering launch the first of its national product road shows, The Realcold - 2005 Cool Parts Tour. This show is aimed at introducing a number of our new condensing units and

products to our clients from the areas outside of our main branches around the country.

The first show started on the 1st of June in New Plymouth at The Autolodge Conference Centre. The show was attended by 30 domestic and commercial engineers who showed a lot of interest in the Geneglance Ice Maker, the newly designed Realcold Milk Vat Unit, a range of refrigeration tools and the Gree Air Conditioners.

Murray Walker (Palmerston North Branch Manager) and Sales Engineer, Daryl Dean organized a great event that ended on a high note. The evening was not complete without a pool challenge between the clients and the Refrigeration Engineering staff, though we will not mention who won.



The 8th of June saw the second evening held in Gisborne which was attended by 25 local clients. Nigel Tunnicliffe (Hawkes Bay Branch Manager) and Dave Hawke (Sales Engineer) can be proud of a well run and set up event. The Plug in Cooler units and the Gree Floor Standing unit received a lot of interest.

Robbie Hunt (General Manager) and Noel Mountjoy (Air Conditioning Product Manager) attended both events and will follow the road show throughout the country. Everyone who attended the road show appreciated the time & effort taken to bring the road show to areas outside of the branches.



50 years of the Realcold Components Division - The Humble Beginnings

Components Division, legend has it, was started after a crate of 200 thermostats was delivered by mistake to what was then a small refrigeration contracting company specializing in design and installation of ammonia systems. While the thermostats were soon delivered to the correct wholesaler, it started a chain of events that carries on today.



Stanley Street in Auckland was where the company began (in an old bacon factory). In 1955, the opportunity arose to purchase a refrigeration parts business. After a few years of business, the company outgrew its first premises, and decided to move closer to its customers, in the industrial suburb of Penrose. The move was made to 8 Penrose Road in 1962. Both Contracting and Components business continued to grow, and extensions were made to the original buildings to keep pace.

Expansion began with the Christchurch branch in 1968, followed by Wellington in 1979, then Palmerston North (2000), Hamilton (2002), Hastings (2004), and North Harbour (2004). Following the acquisition of Miller's Mechanical in Dunedin in 1990, a store was established there to service the local customers.

The growth in outlets required growth in inventory, and more bulk storage to service the growing number of outlets. The Tonka store under No 6 Penrose Road, along with a second store (No. 2 Store) was rented in Gavin Street, and it was followed by others as space became tighter. We soon spent more time moving goods between stores than anything else, or so it seemed!

This led to the decision to build new premises at No 9 Prescott Street, and the Components division moved here in 1998. Today, we operate from this modern design, pillar less store with a spacious and well-lit showroom, a huge improvement over the cramped premises we left behind.



As for down in the South Island, before the first Realcold branch office was set up in 1968 in Livingston Street, Linwood, Christchurch, Realcold serviced customers out of a van, traveling from Auckland through the whole of the South Island before returning to Auckland. With the branch office, it was a much improved service for the customers as it meant that stock was readily available and freight shipments were more reliable; customers did not have to constantly travel long distances to purchase refrigeration components.



In the mid 1970s, another move was made into a new 4000 sq ft building at 71 Harman Street, Addington. In the early 1990s, the current available area of the branch was doubled after taking over the building next door. Shortly after this, another store was opened in Dunedin at Miller Mechanical (a sister company to Realcold) and is operated part time by one of the factory staff.

Through the late 1990s and into the new millennium, Realcold South Island has continued to change and grow to keep abreast with the changing face of the industry, particularly the current shorter lead times. Another major strength of this branch is the caliber and knowledge of the long serving and loyal staff, averaging a length of service of between 10 - 15 years.



The Christchurch Team

"People, Product, Service"

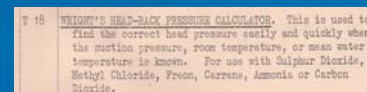
The New Face @ the North Harbour Branch

Darrell Irvine is our new Sales/Customer Services person at our North Harbour branch who has taken over from Mike Hines. Mike has moved into the Account Manager role and will be servicing the North Shore and East Auckland areas.

Darrell brings his vast experience with a background in management and sales representative roles in the refrigerated container industry, along with various customer service roles to the North Harbour branch.



The handy location of this branch is close to the motorway and central routes around the North Shore. It holds a wide range of stock that will cater to most everyday needs for those working on the Shore, with the full back up of the main head office in Penrose.



A sample item from one of the 1st Component Catalogues dated 1957, depicting strange old lines: "Wright's Head-Back Pressure calculator"

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NEW PRODUCT RANGES AVAILABLE FROM REALCOLD

AIR COOLED CONDENSING UNITS FOR ON-FARM REFRIGERATION



Custom designed and built for on-farm refrigeration; the Realcold TMV units are efficient, quiet, slim and durable.

Available in 7 different models in different nominal horsepower and cooling capacities, the Realcold TMVs caters to various herd and vat sizes.

GREE WINDOW WALL AIR CONDITIONER



The professional's choice, this quiet design is built with a four way airflow that comes in two different cooling and heating capacities that requires low levels of energy consumption.

The Gree Window Wall air conditioner is slim and has an easy clean filter. Designed and built on quality and reliable professional methods by Gree Electric Appliances Inc, the largest air conditioning manufacturer in China since 1996, you can be assured of a quality product at an exceptional price point.



YELLOW JACKET SUPEREVAC PUMP 35 L/M

Protect your profits, reputation and your customers' system by using advanced technology such as the SuperEvac System and service techniques such as fast, low vacuum.

The SuperEvac System pulls a fast vacuum to 15 microns and better which is deep enough to get rid of contaminants that could cause system failure. The heart of the system is the new, improved Yellow Jacket pump. The compact 2 stage 35 L/M vacuum pump is ideal for smaller jobs such as appliances and small residential air conditioning installations.

Features:

- Evacuate quickly to ultimate vacuum of 15 microns
- Heavy duty construction includes all metal parts and a rugged 1/6HP motor. Capacitor start
- Compact size for easy handling
- Offset vanes maximize capacity
- Fully tested, inspected and run-in
- Supplied with 3/8", 1/4" flare and 1/2" Acme intake fittings

* Adapted from the Yellow Jacket HVAC/R Service Tools Edition - 54A.



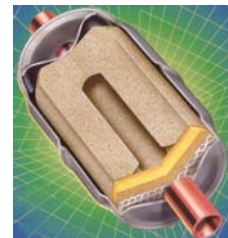
SPORLAN CATCH-ALL - It's the CORE that Counts

Designed with an appropriate blend of molecular sieve and activated alumina, the Sporlan Catch-All filters have excellent water capacity and the ability to remove acids.

It can remove a large range of contaminants that can exist in R-410A/POS lubricant systems. Desiccants used in Catch-All are also moulded into a core that eliminates the possibility of desiccant attrition.

Features:

- Compatible with CFC, HCFC and HFC refrigerants - including R-410A
- Compatible with mineral oil, alkyl benzene and polyolester lubricants
- Fiberglass pad seals core to shell wall to prevent refrigerant bypassing core
- Final 100 mesh screen "safety filter" for added protection
- Leaf-spring holds core firmly in place and provides shockproof assembly for rugged handling
- Moulded porous core, a unique blend of desiccants assures uniform porosity for maximum filtration



Tip of the Month : Part 1 - Recovering R410A - Working Safely

With the phasing out of R22, R-410A has become a popular replacement. Due to the significantly higher pressures involved with using R-410A than compared to R22 (1.8 times higher), it is wise to be fully equipped with the necessary tools.

To work safely with R-410A, a technician will require:

- **Manifold Set** - Manifold gauge set with a low side gauge that reads up to 500psig and a high side gauge that reads up to 800 psig (higher than standard manifold set).
- **Hoses** - Hoses and assemblies should be Underwriters Laboratories (UL)-recognized and certified for R410A pressures, with a minimum of 800-psi working pressure and a 4,000-psi burst.

A ball-valve type connection is recommended as opposed to an anti-blowback connector as it is much easier to control under high-pressure conditions. An anti-blowback connector acts like a check valve, trapping refrigerant in the hose, making it difficult to disconnect the hose under high pressure conditions.

- **Recovery Equipment** - Recovery units must be approved for Class V refrigerants including R-407C, R-404A, R-507 & others per the Air-Conditioning and Refrigeration Institute (ARI) - refer to www.ari.org or www.ul.com.

For best performance, the R-410A recovery equipment should have:

1. **Oversized condenser** - This helps to completely condense the refrigerant and keeps the tank temperatures down.
2. **Fan** - Larger fans with more aggressive pitch blades means that more air is moved over the condenser, keeping critical internal components cool, increasing their life expectancy.
3. **Crankcase Pressure Regulator (CPR)** - This ensures that the recovery equipment is not overwhelmed with high pressures when working with R-410A. This prevents having to regulate the flow of refrigerant to the recovery unit to prevent damage to the compressor.
4. **Recovery cylinders** - An appropriate standard/rated cylinder **MUST** be used when recovering R-410A as a standard recovery cylinder will not safely handle the high pressures of R-410A.
5. **High-Pressure Cutout** - A high-pressure switch, rating higher than 510-psi, will prevent the recovery unit from prematurely relieving on high pressure when recovering R-410A.

As always proper maintenance of this equipment is highly recommended for your safety:

- Calibrate the gauges on the manifold sets before every use
- Check manifold sets for leakage annually
- Check for nicks or cracks in your hoses
- Ensure valve assemblies do not leak
- Check that gaskets in hoses are in good shape
- Periodically check the recovery unit to ensure that it is safe to use
- Check the built-in or external filter if there is a degradation in the rate of recovery
- Clearly mark all R-410A tanks & get them re-certified every 5 years

* Adapted from Yellow Jacket Update Vol 1, Issue 3, Aug 2003 by Ralph Vergara



Toyo Specials Still ON!

Enquire at any Realcold branches for your Toyo piping & air-conditioning accessories at a discounted rate!

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