

A large, dark blue sign with the letters 'HVACR' in white, bold, sans-serif font. Below it, the letters 'H Q' are also in white, bold, sans-serif font. The sign is mounted on a wall in a trade show booth.

HVACR
H Q

THE GAUGE ISSUE 9

The latest industry news and
product information in HVAC-R

ACTROL™

ACTROL

CONTR
YOUR
ENVIRO
NMENT

ARBS Wrap up

Find out about the exciting
new products we launched
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you track cylinders **Page 3**

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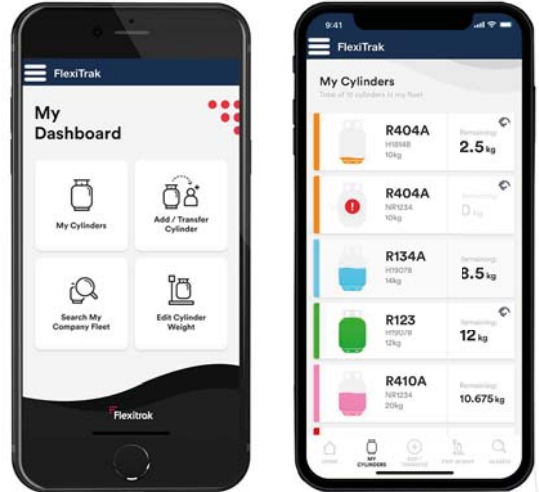
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IMPROVING THE WAY YOU TRACK CYLINDERS



We want to make the way you track your cylinders easier and more beneficial, so we have been researching how cylinder management applications currently work for you and how they can work better. We've been working on this for the past 9 months and we're pleased to say it's finally here – introducing our new baby, Flexitrak.

We have shadowed techs, sat down with administrators, even simulated a cylinder's journey, and realised a few common themes and problems you are facing. From this we have redeveloped Flexitrak, with a new technician focused app to help you track, measure, and transfer your cylinders in one complete management tool.



We listened, here's the features you asked for that are coming!



View company fleet

Need some R22 but don't want to go buy a whole 10kgs? See your full company fleet and whose holding what. Give your workmates a call and save time travelling to a branch.



Transfer cylinders

Transfer a cylinder between techs, clearly passing the responsibility from one to another. You will be notified of the transfer too, so no more arguing who should have what.



Add your entire fleet

We know you sometimes buy cylinders from other wholesalers, save time when it comes to reporting your usage and reclaim by managing ALL your cylinders in one fleet.



My Cylinders

Techs can manage their individual fleet in real time so they have more control over their stock.



Edit weight

Measure and track your refrigerant. Used 3kgs of R427A at JOB 1234? Punch this in, so you know you have 7kgs left in your cylinder and remember where it went.

maxTM

Login to maX and start managing your cylinder fleet better today.

We're still listening!

This baby is growing, and we want to work with you to continuously out-innovate ourselves. If you have any ideas on how Flexitrak can improve your work life, we want to hear it.

Send all ideas to flexitrak@reece.com.au

R448A A RECOMMENDED REPLACEMENT FOR R404A

The days of easily obtaining R404a are definitely numbered.

R404A is an HFC refrigerant. As you are aware, a quota system is now in place for importing HFC refrigerants and this reduces every two years. The available import quantity of HFCs is based on the global warming potential (GWP) of each refrigerant. The higher the GWP the less that can be imported. R404A has the highest GWP of the common HFCs currently imported. As an example, you could bring in 3 times as much R134a as you could R404A as their GWPs are 1300 and 3943 respectively. R404A's high GWP will limit its import and its price is likely to elevate quickly. Lower GWP alternatives are now available for retrofitting most common refrigerants.

These are blends of HFC and HFO refrigerants (where HFO refrigerants have nearly zero GWP) and the blends have characteristics very similar to the HFC refrigerant they are replacing. Importantly they are non-flammable. Changing to low GWP will prolong the availability of refrigerants that can be used on existing systems.

The confusing part now is choosing which alternative to use. Already we see a lot of contenders and the following table lists the main choices.

Type	ASHRAE No	Brand name	GWP (AR5)	Glide	Flammable
HFC	R404A	R404A	3943	0.9	No (A1)
HFC	R407A	Suva 407A	1923	4.1	No (A1)
HFC	R407F	Performax LT	1674	4.3	No (A1)
HFO/HFC	R448A	Solstice N40	1273	3.5	No (A1)
HFO/HFC	R449A	Opteon XP40	1282	3.3	No (A1)
HFO/HFC	R449B	Forane 449B	1296	3.4	No (A1)
HFO/HFC	R452A	Opteon XP44	1945	1.8	No (A1)

The lowest GWP alternatives are R448A, R449A, and R449B. Excluding R449B for the minute as it is yet to be released in Australia, we compare R448A and R449A. These are all very similar in performance with the following findings:



R448A has a slight improvement over R449A in:

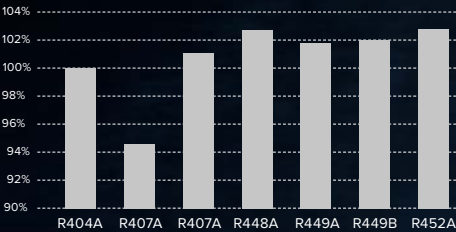
REFRIGERANT CAPACITY

CHARGE SIZE

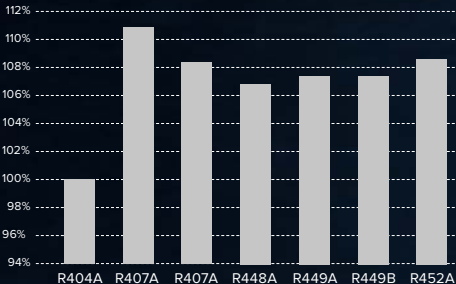
COP

Note: The discharge temperature of all alternatives is notably higher than R404A

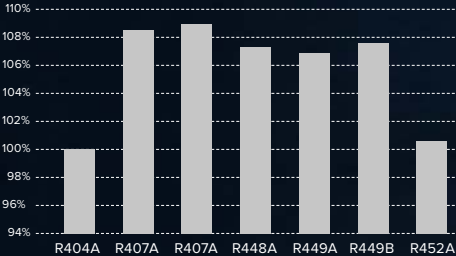
Refrigeration Capacity
above 100% is desirable



Charge Size



COP cool
above 100% is desirable



With this comparison in mind, we recommend R448A as the preferred alternative.

Extended tables of these and other replacements refrigerants are available through all Prime refrigerant outlets. Ask at any Actrol branch.

The above graphs were built using a Cycle D software package from NIST, where the abilities of each refrigerant are derived and compared to R404A. Parameters used: SST=-25, SCT=40, SC=3



ARBS WRAP UP

Talk about big! This years ARBS exhibition saw 7,526 visitors through its doors over an enormous three days from May 8th-10th.



For the first time Actrol joined forces with Metalflex and Reece Hvac to stand united in the industry as an entire heating, ventilation, air conditioning and refrigeration offering. Spanning close to a massive 300m², our stand was the biggest and right in the centre of the show, acting as a head quarters for those to stop by, grab a coffee and

check out some great new products that are going to revolutionise the industry.

We would like to thank everyone who headed down to the brilliant new ICC in Sydney and made this ARBS the best to date. We truly value your interest and support and look forward to the next one back in Melbourne in 2020!

HVACR H Q

ACTROL
metalflex

reece hvac



ARBS, WHAT YOU MISSED

We are excited to announce we launched some electrifying new products at ARBS 2018. If you couldn't make it to the ICC in Sydney to see them in the flesh, here is a quick overview of our new products.



ACPAC FITTED WITH VARIABLE SPEED DRIVE (VSD)

With a Factory fitted Vacon Variable Speed Drive, this range provides precise capacity control of your refrigeration system to match the system load at all times, resulting in energy and cost savings. The models are easy to install and commission and are suitable for either R134a or R404A refrigerant.



COMPAC

A new range of fully fitted packaged units with world leading Tecumseh hermetically sealed reciprocating compressors. Designed with space constraints in mind, the horizontal discharge condenser configuration suits unit placement in car parks, roofs, on the side of building and on top of one another, without restricting airflow.



EMERSON BALANCED PORT TX7 VALVES

The newest line in our Thermostatic Expansion Valve range is designed to operate in both normal and reverse directions. The optimum superheat control in reverse flow direction ensures excellent control of the system. With a larger power element, single diaphragm design and balanced port construction, the superheat will remain stable in varying operating conditions and partial load.



EVO-AQUA WATER COOLED CONDENSING UNIT

The perfect alternative when air cooled units are impractical due to excessively high ambient temperatures or excessive fan noise. These models utilise performance-proven Tecumseh reciprocating compressors and high quality coaxial condensers.



CASTEL ELECTRONIC OIL REGULATOR

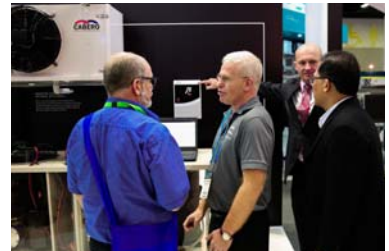
With three optical sensors, a big sight glass, coloured level indicators and no moving parts, the new Castel oil regulator is more reliable, provides more accurate readings and gives better control of oil return.

The regulator can also be specifically configured with customised refill and wait cycles and fits most common medium to large compressors.

ALL HAIL THE DC-3, SMART REFRIGERATION THAT IS GOING TO REVOLUTIONISE HOW WE DO COOL ROOMS.

Introducing a simple plug and play refrigeration system, like a split air conditioner, but in the refrigeration space! This is the first of its kind as we know it and is really going to change the game.

- Incredibly simple to install
- Fully programmed
- Extremely energy efficient



To bring this system together, four renowned organisations united and worked together:

- SCI** – supply the brushless DC scroll compressor
- Tecumseh** – manufacture the outdoor unit
- Carel** – provide the DC control
- Cabero** – supply the uniquely specified evaporator fitted with EVD Ice

THIS IS AN ENTIRELY NEW USE OF TECHNOLOGY TO ENABLE:

Perfect system control with stable regulation

- Continuous superheat set point modulation according to real cooling demand
- Dynamic modulation of cooling capacity results in minimal “off” cycles
- More stable product temperature and reduction of defrost needs
- Enhance the advantage of variable speed compressors
- Automatic and easy to configure

Optimal energy efficiency with floating suction and condensing set points

- Continuous suction pressure set point modulation by real time synchronization with the evaporators request
- Optimum and stable suction pressure control
- Compressor ON-OFF cycles reduced
- High efficiency and stability with Siam brushless DC compressor

Long system life

- Carel EEV controls oil return to the compressor
- Evaporator wash cycle flushes oil out of the evaporator to maximize system efficiency
- Speed Boost Function temporarily speeds the compressor to assist oil return.

Additional Features:

- Brushless DC scroll compressor technology with an acoustic blanket greatly reduces outdoor noise.
- The control system will be fully programmed plug and play with wizards to make installation extremely easy
- This will be designed for future refrigerants

We have been testing this unit in our Victorian laboratory expect energy savings of up around 30% compared to a conventional refrigeration system!

Our prototype was launched at ARBS and is expected to be in stock at your local Actrol in Spring.

KADEN EASY INSTALLATION & MAINTENANCE

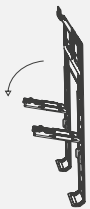
kaden°

Modern and sleek in design the Kaden wall mounted air conditioning range doesn't just stop at its good looks. There are number of key benefits Kaden has for ease of installation.



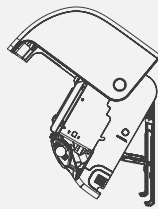
MODELS AVAILABLE

- 2.6Kw
- 3.5Kw
- 5.0Kw
- 7.0Kw
- 8.0Kw



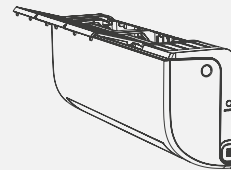
Lift supports provide easier access to the back of the unit.

Kaden's clever mounting bracket has two installation lift supports which allows the unit to sit on the wall for much easier access to the back of the unit during installation and maintenance.



Front Panel Locks Open

The front panel of the unit can lock into place when open to allow the installer easy access to the internals of the unit. These features make installation and servicing a breeze with only one person required.



Removable Filter

Kaden's wall mounted air conditioners offer an innovative solution allowing easy removal of the dust filter without having to open the actual unit. This solution also makes cleaning safer with no exposure to the internals of the unit.

TESTIMONIALS

“

Kaden was simple to install and performed much better than we thought it would. The instructions and customer manuals are the best we have seen

- Elliot, QLD

”

“

Love the flip on the indoor bracket, makes things much easier. Pulled room temperature from 32 to 24 degrees in 18 minutes. Love the LED display and very easy to use. Also, very impressed with how quiet the unit is

- Adrian, VIC

”

TAKING A TUMBLE WITH FILTER DRIERS. ARE YOU IN THE SOLID CORE OR COMPACTED BEAD CORNER?



Filter driers are used in refrigeration and air conditioning systems to filter unwanted solids and moisture from the system.

Moisture will block a system at the expansion device as it turns to ice and will cause the oil in the system to become acidic. Acid within a system will break down the compressor windings and cause the compressor motor to burn out.



Filter driers are made specifically for different parts of a system, liquid and suction filter driers are the most common types.

Hermetically sealed filter driers with flare or solder connections are used in small to medium systems with pipe diameters up to 3/4 inch and solder connected demountable (pull apart) shells with replaceable filter drier cores are used in larger systems and pipe diameters of 7/8 inch and above.

There are two types of internal filter drier media in common use, molecular sieve and activated alumina. Molecular sieve has very high moisture holding capacity while activated alumina has a high acid holding capacity.

It is common for original equipment manufacturers (OEM's) to use activated alumina in filter driers as the manufacturing environment can be controlled to minimise the introduction of moisture.

Field replacement filter driers are often a mixture of molecular sieve and activated alumina to ensure both moisture and acid are removed from the system.

Compacted bead filter driers are usually made from a mixture of molecular sieve and activated alumina and are the most commonly used service replacement filter driers. The advantage in service replacement is if moisture is present, then acid will be too. So capture of both moisture and acid is required to effectively remove contaminants.

Solid core filter driers use a bonding material to produce a solid core, this type of core is used on some hermetically sealed and all demountable filter drier shells.

Compressor motor burn outs contaminate the system so after replacing a compressor a suction burn out filter drier should be installed in the suction line. This burn out filter drier should be removed after the system has operated for some weeks to ensure all the acids and other contaminants have been effectively removed from the system, this will protect the replacement compressor.

One of the most common causes of damage to refrigeration and air conditioning systems is moisture in the system. Moisture can be introduced during open maintenance procedures so ensuring a good vacuum after maintenance and replacing the liquid line filter drier is essential to ensure future reliability.

Still unsure of your requirements?

Lucky, we stock the best of both.
View the Castel and Emerson ranges
in your local branch today.

TOOL CATALOGUE OUT NOW

1 MAY - 30 JUNE

WIN

A trip to Germany

Visit the ROTHENBERGER
TEC Centre & Oktoberfest!*



See catalogue
for details

*1 trip for one person per customer. Permit number: ACT TP 18/00601, NSW LTPS/18/23216, SA T18/5256

PACK FULL WITH HEAPS OF GREAT DEALS ON FANTASTIC PRODUCTS.

PICK UP A COPY IN STORE OR CHECK THEM
OUT ONLINE AT ACTROL.COM.AU/TOOLUP

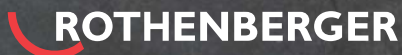
AND COOL BONUS OFFERS

INCLUDING

A FIRE PIT WITH
MILWAUKEE 6 PIECE
M18 FUEL KIT

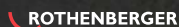


See catalogue for more details



PRESS TOOLS

The choice of professionals, ROTHENBERGER provides complete solutions for rapid pipe installation. ROTHENBERGER offers the most extensive range of the highest quality German engineered products for your work crew.



ROMAX® COMPACT TT

8078100

When it comes to press tools, the aim has always been to make a device that provides maximum force in a compact, easy to handle unit. One tool has now risen to this challenge - introducing the ROMAX® Compact TT.

\$1,899

*Jaw not included



ROMAX® 4000

7701304

The new ROMAX® 4000 is next generation press tool technology. German engineered, this lightweight unit features a compact wand-like design, faster pressing cycle and a more balanced design than its predecessors.

\$2,335

*Jaw not included



It's now easier than ever to start using **>B< MaxiPro**, thanks to the new Romax 3000/4000 MaxiPro Jaws!

PRESS JAWS

SPEAK TO YOUR BRANCH TO FIND THE JAW AND TOOL COMBINATION THAT IS RIGHT FOR YOU!



Conex | Bänninger

EXCELLENCE SINCE 1909

COPPER

Conex Bänninger is the recognised leader in copper press fittings in the plumbing and HVAC-R industries in Australia. Jaws are available in 15-100mm sizes.



Conex | Bänninger

>B< MaxiPro

REFRIGERATION

>B< MaxiPro is a press fitting system providing a secure, permanent leak-proof joint, suitable for air conditioning and refrigeration applications.

REFCO

Gauge manifolds are one of your most basic refrigeration tools, that double as one of your biggest, most useful assets. Invest in quality with Swiss made Refco manifolds.

Whether your of the opinion that real fridgies use real analogue gauges or not, no one can argue with the quality of Refco manufacturing



WITH PREMIUM BOURDON TYPE GAUGES

Gauge internals are all brass no plastic pieces

HIGH QUALITY ALUMINIUM BODY

COLOUR-CODED

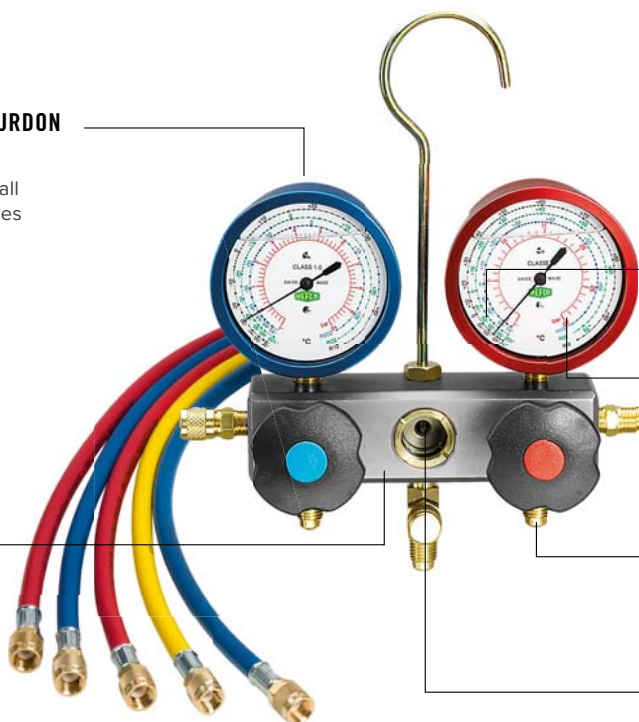
For easy high and low side identification

ZERO POINT ADJUSTABLE

REFCO BRANDED KNOBS

SIGHT GLASS

For easy high and low side identification



Conex | Bänninger
>B< MaxiPro
 Join the Press Revolution

Did you know MaxiPro press fittings are R32 compatible? Ask your local branch for more information and join the press fit revolution.





We're sure you've already heard,
we are heading across the ditch!

Reece has recently acquired Heatcraft New Zealand. This is a fantastic opportunity to enter the HVACR market in a new country and we're excited continue to expand and take on our next challenge! Stay tuned for updates and what we're up to next!



Actrol Lonsdale has now opened!

Previously a Reece hvac branch, Scott Taylor and the team are now proudly donning the Actrol strip, so pop down and say hi if you're in the area.

**87-93 O'Sullivan Beach Road,
Lonsdale, SA 5160
08 8187 3370**



HOT
TEC
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IDE

H V A C R
H Q

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