GRADUATE INFORMATION PACK AUTOMOTIVE

Congratulations on successfully completing your studies!

ARC CTM

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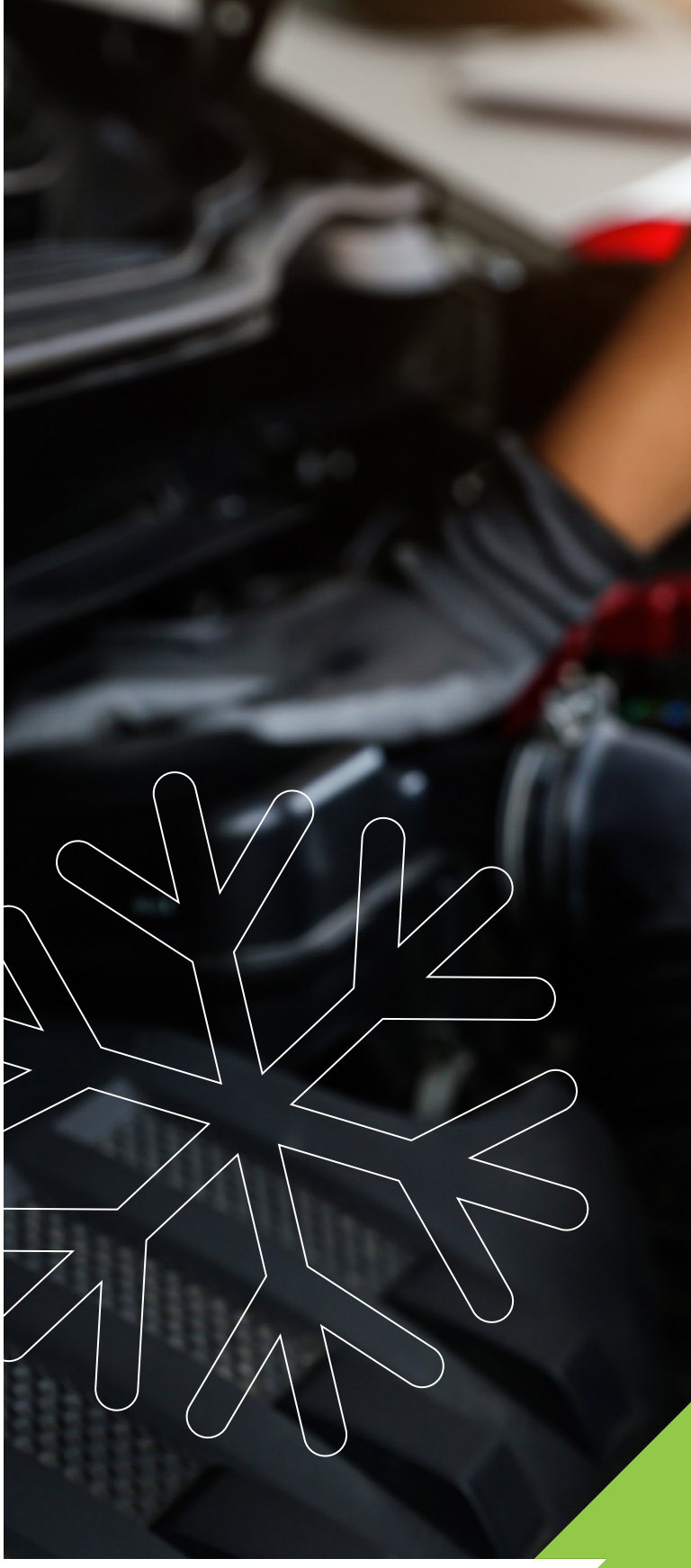


AUSTRALIAN REFRIGERATION COUNCIL

Congratulations on successfully completing your studies!

MESSAGE FROM THE ARC CEO

Congratulations on successfully completing your studies!

A career as an ARCTick licensed refrigeration and air conditioning technician can be very rewarding, and this information pack will help you on your way.

This pack contains useful technical information, tips on how to be compliant, and details of legislation and regulations you must be aware of.

You'll need an ARCTick licence to work on RAC equipment, and you can find details of how to apply at https://www.ARCTick.org/refrigerant-handling-licence/.

The refrigeration and air conditioning sector is Australia's single largest user of synthetic greenhouse gases, so the Australian Government established the ARCTick licensing scheme to prevent avoidable emissions of harmful gases into the atmosphere. The scheme ensures that technicians and businesses have the qualifications, skills and commitment required.

As the holder of a ARCTick licence you will join more than 112,000 individuals and businesses licensed to use refrigerant gases prescribed under the Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995.

Since the scheme began in 2005, the sector has helped achieve greenhouse gas reductions equivalent to taking half of Australia's cars off the roads for a year. You can do your bit to help by following your licence and permit conditions and industry guidelines.

Also, we need your feedback to help us understand your training experiences and identify areas for improvement. Please take a few minutes to complete a quick survey on your training, which can be accessed here or alternatively you scan the QR code below.

If you have any questions, visit our licensing website at www.ARCTick.org or contact us at enquire@arctrick.org or on 1300 884 483.

Glenn Evans
Chief Executive Officer

REFRIGERANTS AND THE ENVIRONMENT: WHY YOUR ROLE MATTERS

If leaked into the atmosphere, controlled refrigerant gases contained in most refrigeration and air conditioning equipment can be extremely harmful to our environment and human health.

Some refrigerants stay in the atmosphere for decades or more and can be thousands of times worse for climate change than carbon dioxide. They contribute to global warming and can increase the UV index which can cause skin cancers and other health issues.

To put it into perspective, 1 kg of the commonly used refrigerant gas R410a has the same greenhouse impact as 2 tonnes of carbon dioxide. This is the equivalent of driving your car 10,000km!

This is why ARCTick licensed technicians can not only do more than most to help protect our environment but really are the true heroes to prevent global warming.

Refrigerants and the environment

The impact that refrigerant gases can have on the environment first caught global attention in the 1970s, when it was discovered that chlorofluorocarbons (CFCs) were destroying the ozone layer at an alarming rate.

In response, the world united to sign an agreement called the Montreal Protocol in 1987. This helped to successfully phase out CFCs and prevented up to a degree of climate warming. With current international action, the ozone layer is expected to recover by 2065.

Fast forward to 2025, we are in the process of phasing down hydrofluorocarbons (HFCs), the refrigerants that replaced CFCs. While HFCs don't harm the ozone layer, they are still potent greenhouse gases, which contribute to climate warming.

The phase down aim will reduce the production of HFCs by 85% by 2036.

The Department of Climate Change, Energy, the Environment and Water (DCCEEW) oversees the delivery of the ARCTick permit scheme. It also enforces compliance with the relevant legislation under the Montreal Protocol, including laws around the manufacture, import, export, use and disposal of controlled substances, including refrigerants.

Why the ARCTick permit scheme exists

The ARCTick permit scheme was developed by the Australian Government 20 years ago and supports the HFC phasedown and Australia's emissions reduction targets by ensuring:

- businesses that buy, sell or store regulated substances have controls in place to minimise refrigerant emission
- technicians are appropriately trained and qualified to handle refrigerants, and do so in accordance with licence conditions and regulations.

Your role as an ARCTick licensed technician

To do your bit, ensure that you:

- don't release regulated refrigerant into the air
- work within the scope and conditions of your licence
- follow the codes of practice.

Your expertise ensures systems are correctly sized, sited, installed, charged and maintained to prevent leaks and minimise energy costs. The responsible use and handling of refrigerant gases by ARCTick licensed technicians is integral to minimising damage to the ozone layer and climate systems and reducing the impact on human health.

There are more than 112,000 ARC licensed technicians and businesses in Australia. That's a lot of people, like you, making important choices every day to protect the environment and keep everyone safe.

Did you know?

Regulated refrigerants include:

- **HFCs** (Hydrofluorocarbons)
- **HCFCs** (Hydrochlorofluorocarbons)
- **CFCs** (Chlorofluorocarbons)

These substances are subject to environmental regulations due to their impact on the ozone layer and climate change.

WHAT TO EXPECT AS AN ARCTICK LICENSED HOLDER

As a licensed ARCTick technician, you'll have the skills and qualifications necessary to handle refrigerant gases safely and effectively. You're stepping into a role that combines technical skill, safety, and environmental responsibility. Here's what you need to know!

Key benefits of the permit scheme

Beyond its environmental benefits, being an ARCTick technician promotes your qualifications and supports your business reputation.

The ARC offers a range of free resources to support your business and boost consumer awareness, helping you demonstrate to customers that ARCTick technicians are qualified, professional, and dedicated to maintaining high industry standards.

- **Free Promotional Materials:** Access free promotional resources such as posters, stickers, and corflutes to help promote your business and services.
- **Business and Licence Check Directory:** Customers can find qualified technicians using the "Look For The Tick" directory, which can help boost your business.
- **Summer Campaign:** Every year, the ARC runs a consumer awareness campaign to highlight the importance of choosing ARCTick licensed technicians.
- **Industry Newsletter:** Stay up to date with regulatory changes, industry news, and best practices through the ARC's quarterly newsletter, *CoolChange*.
- **Fact Sheets and Resources:** Access a wide range of fact sheets on compliance, refrigerant handling, and environmental best practices.

Licence and permit information

A Refrigerant Handling Licence (RHL) is required to do anything with a regulated refrigerant that could cause leakage. This also applies to RAC equipment components. For instance, you need a licence to:

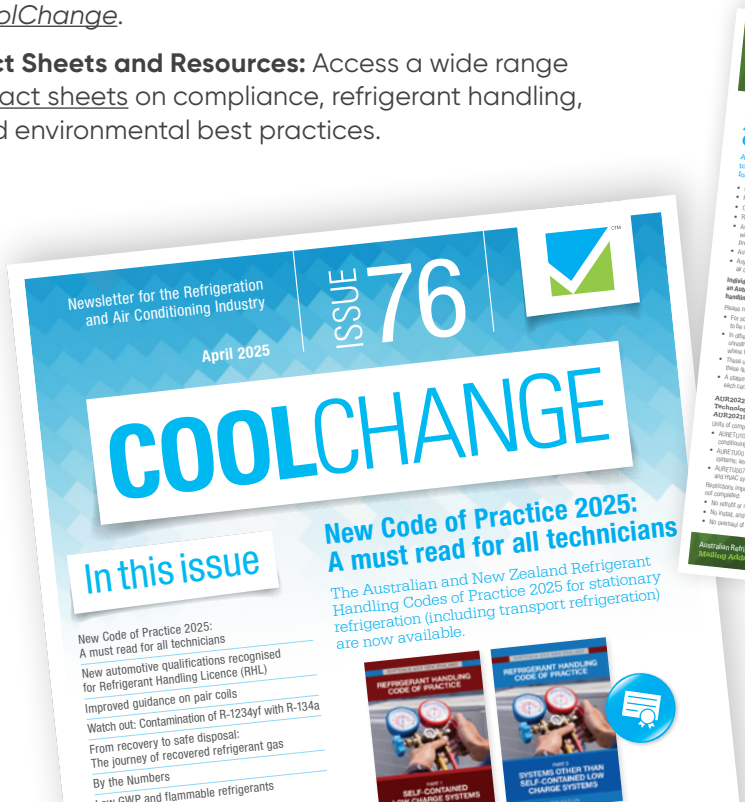
- decant refrigerant
- manufacture, install, commission, service or maintain RAC equipment
- decommission RAC equipment.

Licence types

There are different categories of Refrigerant Handling Licence (RHL) available for different types of work. It is the responsibility of a RAC technician to ensure that they have the appropriate licence to complete their type of RAC work.

A Refrigerant Trading Authorisation (RTA) is also required when acquiring (purchasing), possessing, or disposing of regulated refrigerant.

This webpage provides details on licence types, their entitlements, the required qualifications and units for each licence and how to apply - Types of Licences.



Automotive air conditioning licence

An Automotive Air Conditioning Licence is required for any work on air conditioning equipment fitted to the cabin of a motor vehicle that involves a risk of a controlled refrigerant being emitted. Fact sheet 4 provides information on the qualifications required to obtain an Automotive Air Conditioning Licence. To download the fact sheet, click on the below link.

Fact Sheet 04 – How to obtain an Automotive Air Conditioning Licence

Your obligations under the Act

The Australian Government implemented the ARCTick permit scheme to support regulations under the Ozone Protection and Synthetic Greenhouse Gas Management Act 1989.

All ARCTick permit holders are responsible for ensuring that all work is carried out in accordance with the relevant regulations and according to any licence conditions. For more information of the legislation and regulations, visit the DCCEEW website here.

Licence conditions - standards

ARCTick licence conditions cover the proper handling, recovering, and disposing of refrigerants and ensuring your work meets the required standards. To view the standards, click here.

Code of Practice

Holders of an ARCTick licence must, by law, follow the mandatory practices outlined in the code of practice. The Australian Automotive Code of Practice 2008 provides mandatory and best practice guidelines for ARCTick licensed technicians to handle fluorocarbon refrigerant.

For more information on why it's important to always follow the code of practice, download the Fact Sheet here.

Get your copy of The Australian automotive Code of Practice 2008

Free download of The Australian automotive code of practice 2008 which covers the control of refrigerant gases during manufacture, installation, servicing or de-commissioning of motor vehicle air conditioning.

Penalties

Penalties apply for offences under the Act and the Regulations. Fact sheet 11 – Penalties increase for offences listed under the Ozone Act and Regulations provide the latest information on offences and their penalties as of April 2025.

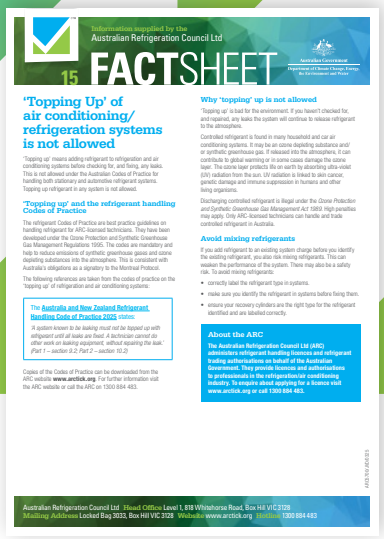
STAYING COMPLIANT AND PROTECTING THE ENVIRONMENT

The importance of being compliant

Adhering to your licence conditions is not only a legal requirement but a vital part of contributing to environmental sustainability. Technicians who comply with regulations help reduce the emission of harmful gases, making a tangible impact on climate change.

The ARC is committed to providing ARCTick licence holders with resources to help them understand their obligations and stay compliant.

Fact sheets to help you stay compliant



Fact Sheet 01 – What are you doing with your contaminated or unusable refrigerant?

It is a requirement to recover, return and safely dispose of ozone depleting and synthetic greenhouse gas refrigerants. This fact sheet provides information on how to dispose of refrigerant and collect your rebate.

Fact Sheet 02 – Are you taking proper care of your cylinders?

The use of untested or unsafe gas cylinders that do not meet Australian Standards is a direct breach of the conditions of holding a Refrigerant Trading Authorisation. This fact sheet provides information on cylinders that are acceptable to use.

Fact Sheet 15 – 'Topping Up' of air conditioning/ refrigeration systems is not allowed

'Topping up' means adding refrigerant to refrigeration and air conditioning systems before checking for, and fixing, any leaks. This fact sheet provides information on why explains why 'topping up' is not allowed under the Australian codes of practice.

The ARCTick website hosts a wide range of other fact sheets on compliance, refrigeration handling, and environmental best practices. Visit **www.arctick.org** to keep up to date.

TECHNICAL INFORMATION

As the automotive industry evolves, staying up to date with the latest technical standards and best practices is essential for ensuring safe, efficient, and environmentally responsible service.

Below are key updates on important topics including refrigerant leakage detection, evacuation processes, and new technologies for hybrid and electric vehicles. These documents provide valuable guidance for professionals in the field to maintain compliance with industry standards and improve operational practices.

- Mobile air conditioning – Refrigerant leakage detection

  During servicing of air conditioning and refrigeration systems, leak detection is a mandatory requirement of both the stationary and automotive code of practice manuals. This webpage provides the latest information on leak detection methods.

- Evacuation – Automotive air conditioning systems

  The main purpose of evacuating an automotive air conditioning system is to remove moisture and non-condensables which include air and nitrogen from the pipework and components. This document provides information on mandatory evacuation methods.

- Lubricating oil and dye in hybrid vehicles using electric AC compressors

  Refrigerant and lubricating oil are circulated together around the windings of the A/C compressor electric drive motor. This document provides information on the use of lubricating oil and dye in hybrid vehicles with electric AC compressors.

- Emerging automotive refrigerants

  R1234yf and R744 (carbon dioxide) are two refrigerants that have been adopted by some global vehicle manufacturers as alternatives to R134a and will present significant changes to the tools, working practices, component standards and workplace safety considerations relating to repair, service and refrigerant recovery. This webpage provides important information on unregulated automotive refrigerants.

- Use of R1234yf, R744 (C02) and R134a in automotive air conditioning

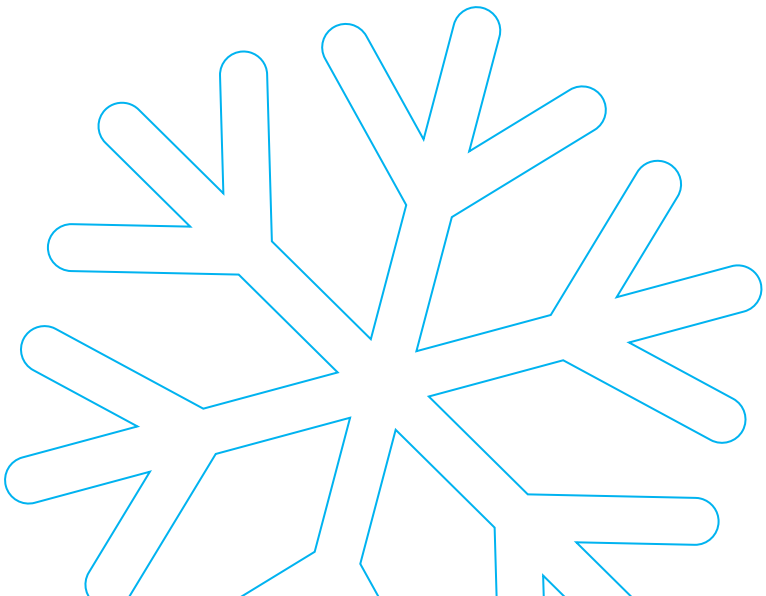
  If your business works with vehicle air conditioning systems, then you need to be aware of new refrigerants that are making their way to Australia in vehicles right now. This document provides important information on current refrigerants used in the automotive sector.

- R1234yf and R744 educational wall chart

  Free poster download with important information on alternative automotive refrigerants R1234yf and R744 (carbon dioxide).

- Flammable refrigerants and safety in automotive applications

  This guide is a joint effort by Refrigerant Reclaim Australia, VASA, and GHD Engineering to address health and safety risks related to the use of flammable gases, such as refrigerants, in automotive workshops. It aims to support those working on or maintaining automotive air-conditioning systems.



FROM RECOVERY TO SAFE DISPOSAL: THE JOURNEY OF RECOVERED REFRIGERANT GAS

Understanding the critical importance of handling refrigerants, including hydrofluorocarbons (HFCs) and ozone-depleting substances (ODS) and their journey is crucial to ensuring the proper return of used refrigerants for reclamation and destruction.

Australia's Lifecycle Refrigerant Management system exemplifies how industry collaboration can minimise the environmental impact of refrigerants throughout their life cycle. This process ensures every stage from import, use, recovery, reclamation, and destruction is tightly regulated and supported by an efficient reverse supply chain.

Refrigerants are imported under a quota issued by Department of Climate Change, Energy, the Environment and Water (DCCEEW) and distributed by wholesalers and refrigerant suppliers who hold Australian Refrigeration Council (ARC) Refrigerant Trading Authorisations (RTAs).

Technicians' expertise and commitment to recovering refrigerant responsibly ensures minimal leakage and safe handling.

Since December 2024, the recovery of refrigerant has prevented 19.3 million tonnes of CO_2-e from being emitted. This achievement has also safeguarded more than 10 million tonnes of stratospheric ozone from destruction. Together, we can make sure that every kilogram of refrigerant is managed responsibly, contributing to a cleaner, safer planet. If you encounter issues returning recovered refrigerant, contact RRA at info@refrigerantreclaim.com.au

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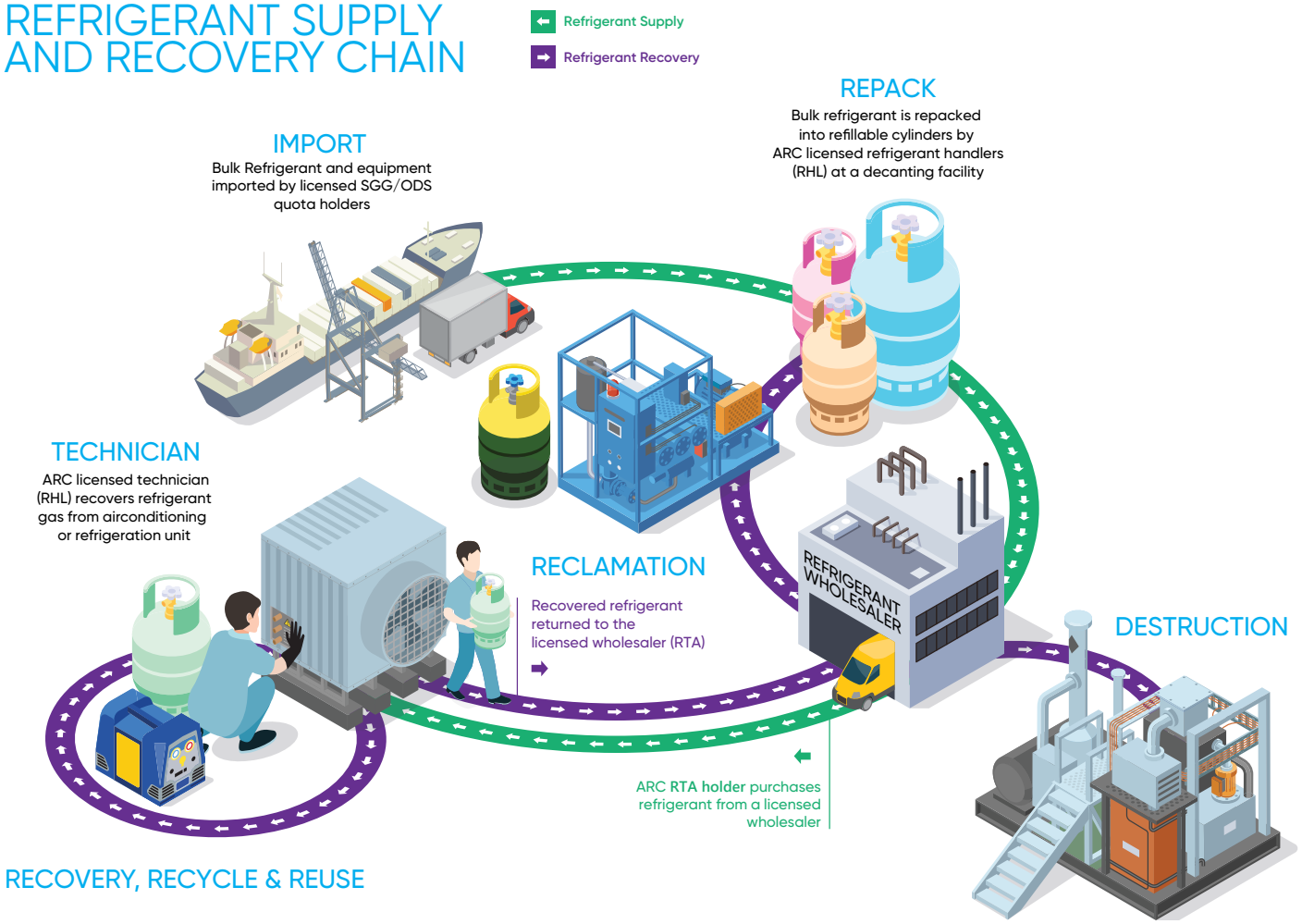
REFRIGERANT SUPPLY AND RECOVERY CHAIN



APPLICATION PROCESS FOR LICENCES AND PERMITS

If you are applying for a full Refrigerant Handling Licence (RHL) or a Refrigerant Trading Authorisation (RTA), here's what you need to know:

- **How to Apply for RHL/RTA**: Visit www.ARCTick.org to apply for the relevant licence or permit.
- **Required Qualifications**: Ensure you meet the required training and qualifications as outlined on the ARC website under Licence Types.
- **Important Documents**: Gather all necessary documentation before submitting your application. Find the list of documents here Licence Application - Australian Refrigeration Council for RHL or Authorisation Application - Australian Refrigeration Council for RTA application.

REMINDER TO COMPLETE THE GRADUATE SURVEY

Your feedback helps us improve our training and services. Please take a few moments to complete the graduate survey, which will only take about 6 minutes.

Your responses are anonymous and invaluable in shaping the future of the ARC's programs click here or scan the QR code below to complete the Graduate Survey.


We wish you success in your career as a qualified refrigeration and air conditioning technician!

HOW THE ARC CAN SUPPORT YOU

We understand that starting a career as a licensed technician can be challenging, but the ARC is here to support you.

From providing educational resources to offering direct assistance via our helplines, we're committed to ensuring your success.

Contact us

Phone: 1300 88 44 83
Fax: 1300 55 40 23
Email: enquire@ARCTick.org
Website: www.ARCTick.org

About ARC

The ARC is the Industry Board for Australia's refrigeration and air conditioning sector. In partnership with the Department of Climate Change, Energy, the Environment and Water (DCCEEW), we administer the national ARCTick permit scheme, which licenses over 112,000 current individuals and businesses to work with refrigerant gases scheduled under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989*.

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