

# RYCO

## DEFENCE CAPABILITY





# DEFENCE CAPABILITY

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# RYCO DEFENCE

*RYCO has provided hydraulic hoses and fittings to the defence industry for over 75 years.*



Imagery: © Commonwealth of Australia 2018

## RYCO Defence

RYCO is a specialist supplier of hydraulic hose and fittings to the various industries in Australia with over 75 years' experience. To add to this vast knowledge and experience RYCO has been supplying various defence contracts now for two decades.

RYCO has been able to bring together the requirements of volume manufacturing for general industry with the specialist needs of defence in the way of design and quality assurance.

RYCO has designed and built specialised test equipment to aid in the development of sophisticated hydraulic hose assemblies to overcome the rigours of defence force applications and environments.

RYCO is an accredited supplier to the Australian and the US Departments of Defence and to the Australian Defence Industry Group.

When the ASC required specialised hydraulic hose assemblies, they chose RYCO to design, test and produce to their high standards. The brief was to design hydraulic hose systems that would operate outside the pressure hull of a submarine therefore withstanding high external pressures and operate without failure for extended time periods in a corrosive environment.

Only RYCO has the design, technology, and testing facilities within Australia to meet the extreme requirements of the ASC. The experience and expertise gained through these challenges' flows into the other areas of defence work that RYCO conducts so that

no matter what the requirement regarding a defence application RYCO is more than able to respond. Be the application on the surface of the water, beneath the waves, in the deserts or tropical rain forests RYCO has a solution to prevent potential problems with hose assemblies.

## Third Party Approvals

RYCO is certified to AS / NZS ISO 9001: 2000 "Quality Management Systems – Requirements" by NATA Certification Services International (NCSI – Registration No. 7029) and ISO 9002 "Quality Systems for Production and Installation" by the Department of Defence (Australia).

RYCO's testing and evaluation process ensures "Zero Defects", and guarantees the performance and quality required to meet the demands of today's applications by safely conveying fluids at high pressure.

## Key Features & Highlights:

- Key Features & Highlights
- Hydraulics for bushmaster vehicles
- Defence vessel hydraulics
- Infantry mobility vehicle hydraulics
- Quality management system – QRAM
- Hoses to accommodate fluids at extremes of pressure and temperature

## Connecting Partnerships

At RYCO we do more than simply supply a product; we understand that our success is dependent on our customer's success, safety, and quality.

The effects of a demanding quality regime for defence has flown through into our general manufacturing so that our non-defence customers are benefiting from the higher quality products when compared to our contemporary opposition.

Through this evolution we at RYCO are able to supply standard product to many defence contracts as the quality of our standard product exceeds many of the specifications stipulated by defence contracts, therefore RYCO can supply high quality components and assemblies at reasonable costings.

RYCO is equipped in people, testing facilities and various manufacturing processes to supply to the defence industry the right technological solutions, RYCO believes in the adage that higher technology leads to greater performance.

This leadership is also reflected in the calibre of people that RYCO employs to work on engineering challenges put to us by the various defence departments and contractors to the defence department as a whole.



# RYCO DEFENCE

*RYCO has provided hydraulic hoses and fittings to the defence industry for over 75 years.*



## BIOTRANS

RYCO BIOTRANS is suitable for transportation hose applications and is typically used for low pressure hydraulic oil return lines, general purpose water, glycol antifreeze solutions, biodiesel, diesel fuel, ethanol, gasoline/petrol, or air.

This one braid high tensile steel wire meets or exceeds the performance requirements of: SAE J1527 Type Class O, USCG SAE J1942, SAE J30R2 (non-marine).

## RTH

RYCO RTH is a Stainless Steel braid Teflon hose and is recommended for high pressure oil lines.

Ideal for fluids at extremes of pressure and temperature. RYCO RTH1 Series Hose Lining is chemically pure, inert and contains no leachable additives.

RYCO RHT1 is remarkably resistant to high temperature and flame. It has a very high melting point, thermal degradation threshold and auto-ignition temperature.

## FIRE SLEEVE - Tough & Flexible Hose Protection

RYCO FIRE SLEEVE increase service life of hoses used in hostile environments.

It's tough, flexible insulation not only protects from intense external radiant heat, but also shreds molten metal splash. Consequently, damage to hoses is reduced and service life is increased in the event of fire, hoses carrying flammable or hazardous materials remain intact longer.

RYCO FIRE SLEEVE can also be used to protect cables, pipes, and wire ropes.

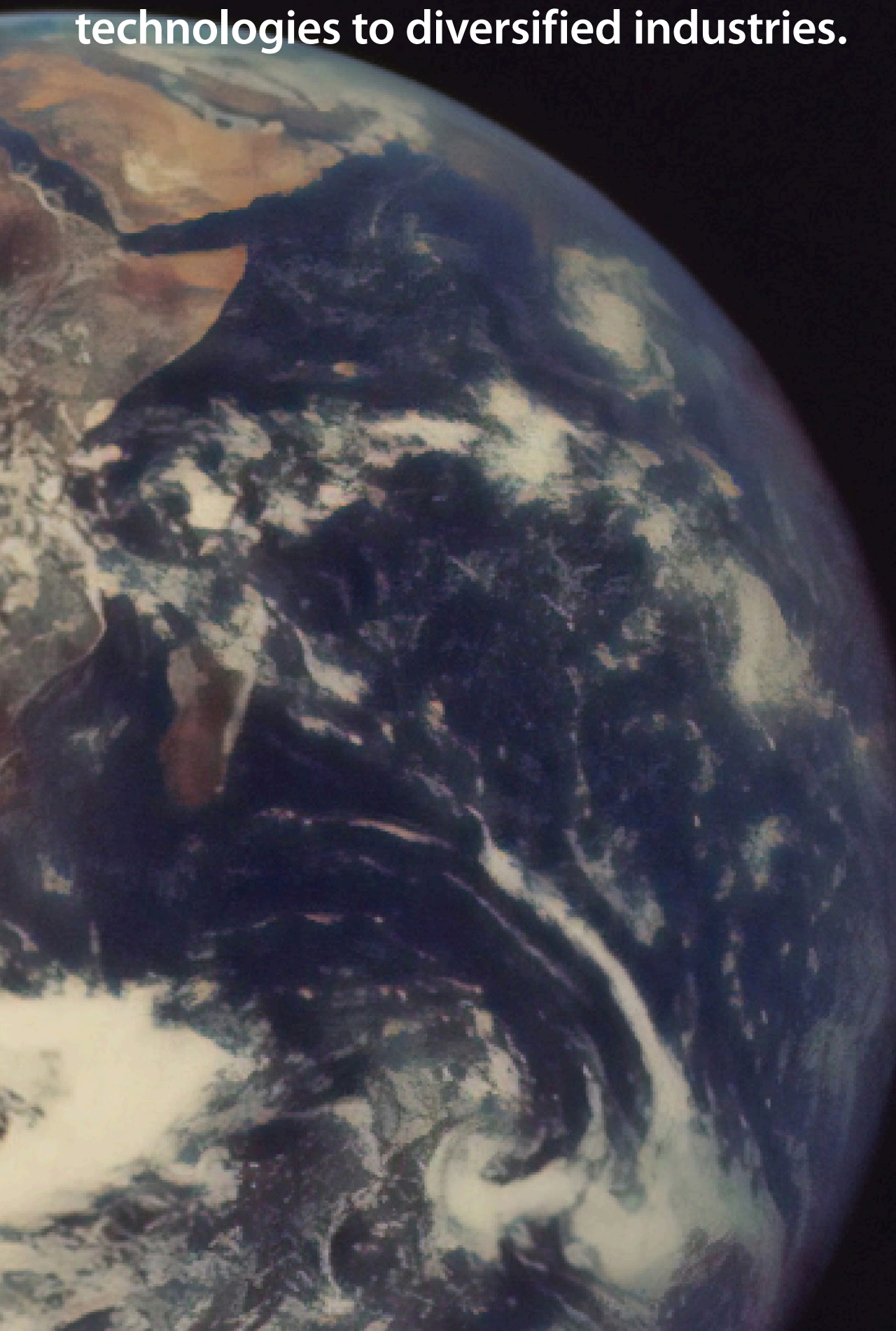


# BUSINESS OVERVIEW



# COMPANY SUMMARY

RYCO is an established global leader in the design, manufacture and distribution of a wide range of fluid conveying technologies to diversified industries.

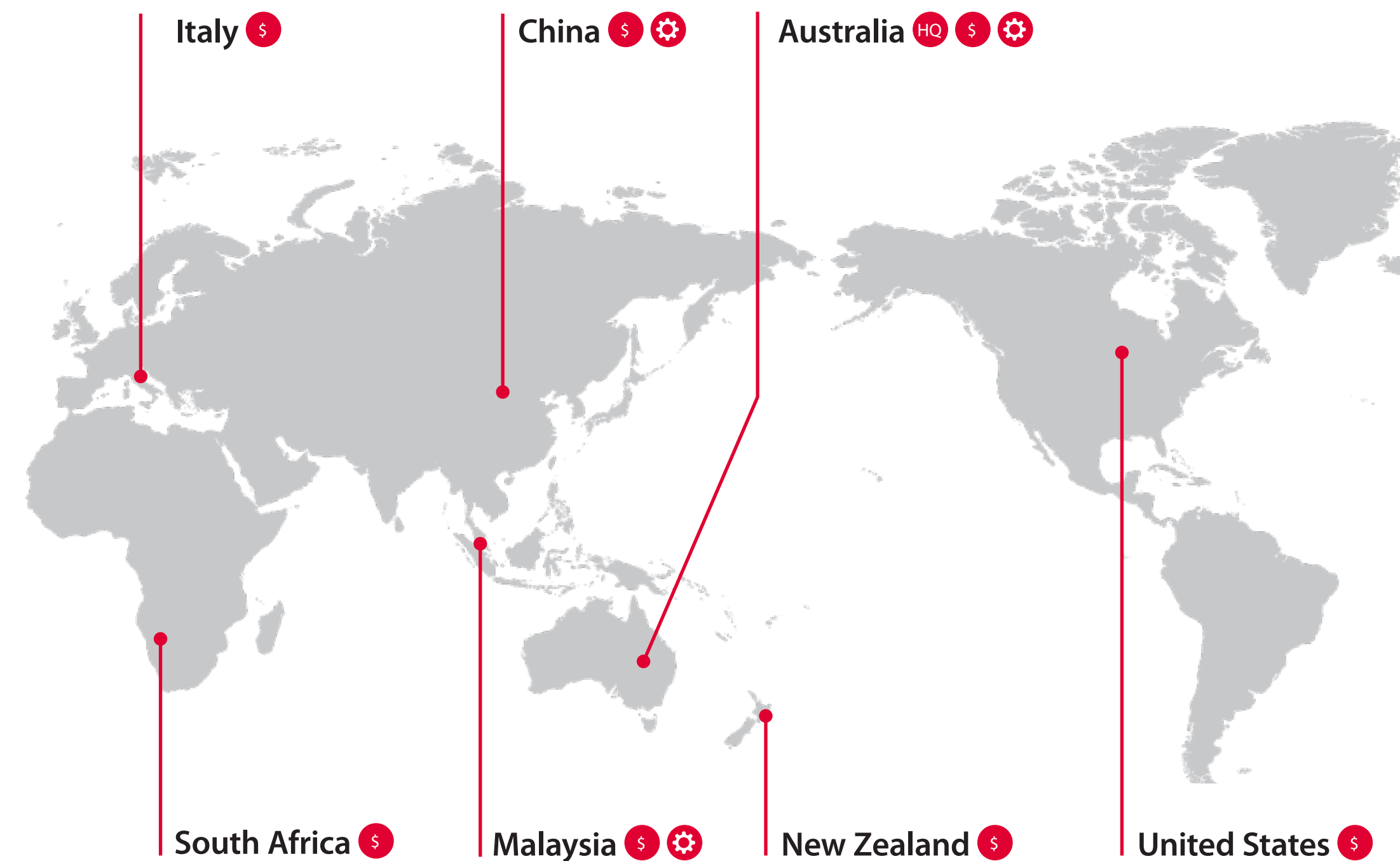


## Overview

- RYCO is a global leader specialising in the design, manufacture and distribution of a comprehensive range of high pressure hydraulic hoses and fittings.
- RYCO's product portfolio includes an extensive range of spiral and wire braid hydraulic hoses, fittings, couplings and adaptors.
- With over 75 years of operation, RYCO has expanded on a global scale with state-of-the-art manufacturing facilities, a global network of distribution centres, offices, OEM hose assembly centres and RYCO 24-7 Service Centres.
- With quality at its core, RYCO products comply or exceed independent third party accreditations as well as relevant international standards such as ISO, SAE and EN (DIN).
- RYCO hydraulic hose assemblies and fittings are used globally by clients in technical industries such as construction, mining and marine where performance and reliability are critical.
- To achieve maximum performance, reliability and quality, RYCO hose assemblies use only RYCO matched hoses and fittings.

## Geographical Presence

 Global Headquarters  
  Sales & Marketing Headquarters  
  Manufacturing Plant



## Product Offering

RYCO manufactures and distributes a significant range of hydraulic components, offering to its customers over 8,000 individual items.-



Hose Assemblies



Hoses



Couplings



Adaptors



Other\*

\* Includes filters, equipment, accessories and other custom made hydraulic products

# CORE STRENGTHS

RYCO's unique competitive positioning and strong brand reputation is underpinned by its technically superior products and business operations developed over its 75 year history.



## 1. Strong Demand Drivers

- RYCO products have applications in diverse and growing sectors including mining, industrial, Defence, marine, defence and infrastructure.
- The broad range of industries supplied is a natural diversification for the business and mitigates against any cyclical demands of the end-markets.

## 2. Continued Investment in R&D

- Major competitive advantage lies in RYCO products, its industry-leading manufacturing technology and its culture of innovation.
- This is a result of continued investment in the R&D of new and improved products and processes, which also helps achieve significant cost efficiencies.
- RYCO prides itself on complying with and exceeding third party accreditations and international standards.

## 3. Strong Brand Awareness

- RYCO products are well known and respected in the market for durability, efficiency and very high quality.
- All RYCO products are branded with batch codes and part identification numbers – 'If it's not branded – it's not RYCO'.

## 4. Strong Supply Chain Management

- The majority of RYCO clients operate time-sensitive businesses. The success of RYCO's global strategy has therefore, been underpinned by close management of its supply chain.
- RYCO Supply Chain standard operating procedures have been developed and refined through an extended history of specialised cross-border distribution of its products.

## 5. Efficient Manufacturing Cost Base

- Whilst the technical superiority of RYCO products is a major competitive advantage, they also benefit from a lower manufacturing cost base, leveraging the business's strategic manufacturing locations.
- RYCO global competitiveness is increased by achieving significant cost efficiencies through continuous improvement of its manufacturing processes and a focus on R&D.

## 6. Growing Market Share

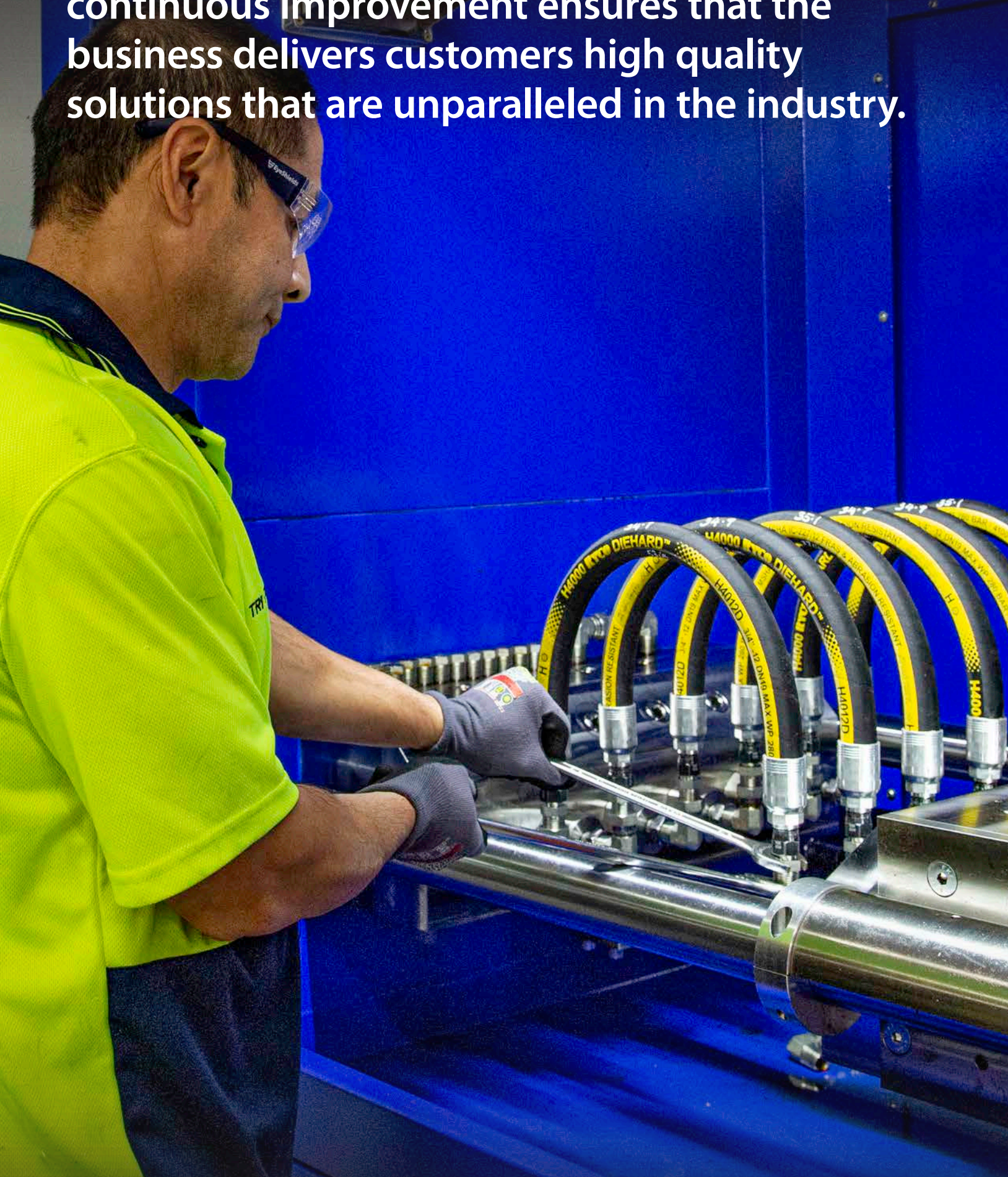
- RYCO has expanded globally, especially through its Mining and OEM segments and further services such as the 24 hour, 7 days a week call-out service RYCO 24•7.
- Whilst RYCO has been selective and successful in targeting new global geographies, highly-attractive and untapped growth markets remain.

## 7. Strong Management

- RYCO has a strong management team with a proven track record of managing and expanding the business in domestic and foreign markets.
- Dynamic and dedicated management teams bring together a wealth of industry knowledge and market sales support unparalleled in the industry.

# RESEARCH & DEVELOPMENT

RYCO's commitment to innovation and continuous improvement ensures that the business delivers customers high quality solutions that are unparalleled in the industry.



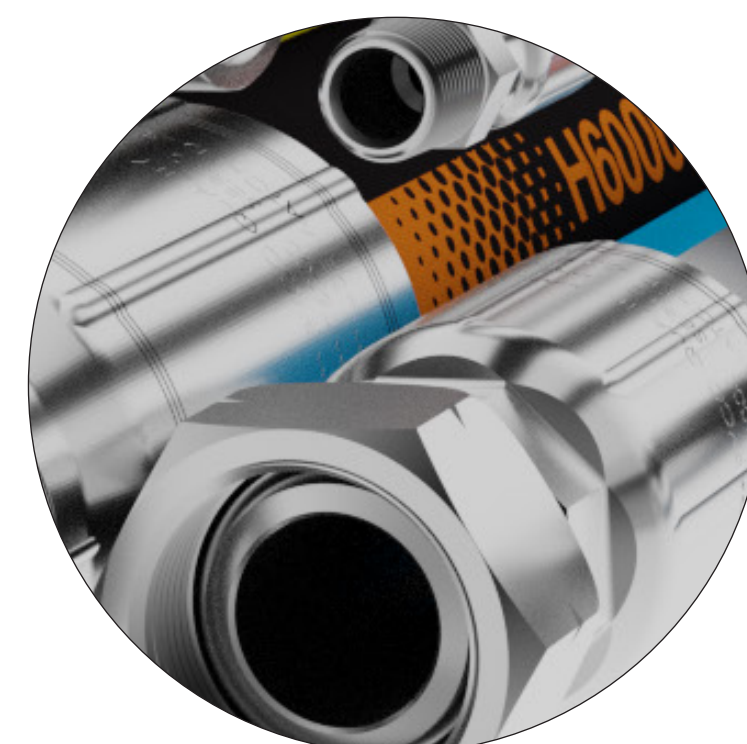
## Compact Spiral

RYCO's new compact spiral hoses are ultra flexible and have very tight minimum bend radii, making them very easy to assemble and install particularly where space is limited.

Compact spiral hose has multiple benefits to customers:

- It lasts longer and is stronger;
- Offers ease of installation;
- Overcomes routing challenges;
- It is more flexible; and
- It weighs less.

RYCO compact spiral hoses come in both DIEHARD™ and SLIDER covers.



## Non-Skive Technology

RYCO's couplings are non-skive products.

Skiving refers to removing (or shaving) part of the hydraulic hose cover and inner tube prior to attaching hose ends.

Non-skive couplings do not require the hose to be skived externally or internally.

Technical benefits of non-skiving include the avoidance of premature hose failure and provision of an outer rubber cover to mechanically protect the steel wire.

Non-skive hose also speeds assembly, eliminates the need for skiving equipment and clean-up.



## JSEAL™

RYCO's hydraulic range of JSEAL™ couplings redefines the benchmark for fitting technology, outperforming any standard JIC fittings connection.

JSEAL™ is ideal for a wide range of industries and provides customers with an increased efficiency, improved productivity, unparalleled reliability and ongoing cost effectiveness.

The high quality, reliable and leak free JSEAL™ couplings reduce environmental impacts and improve productivity and cost effectiveness.



## Cold Forming Coupling Technology

RYCO's coupling manufacturing utilises cold forming, which is a high speed forging process where coiled wire at room temperature is precisely sheared to length, and then moved through a succession of tool and die cavities to displace the working metal.

It has multiple benefits:

- Speed and efficiency;
- Reduction in secondary operations;
- Consistency / dimensional accuracy;
- Quality / surface finish;
- Material savings and elimination of scrap; and
- Improvement in mechanical properties.



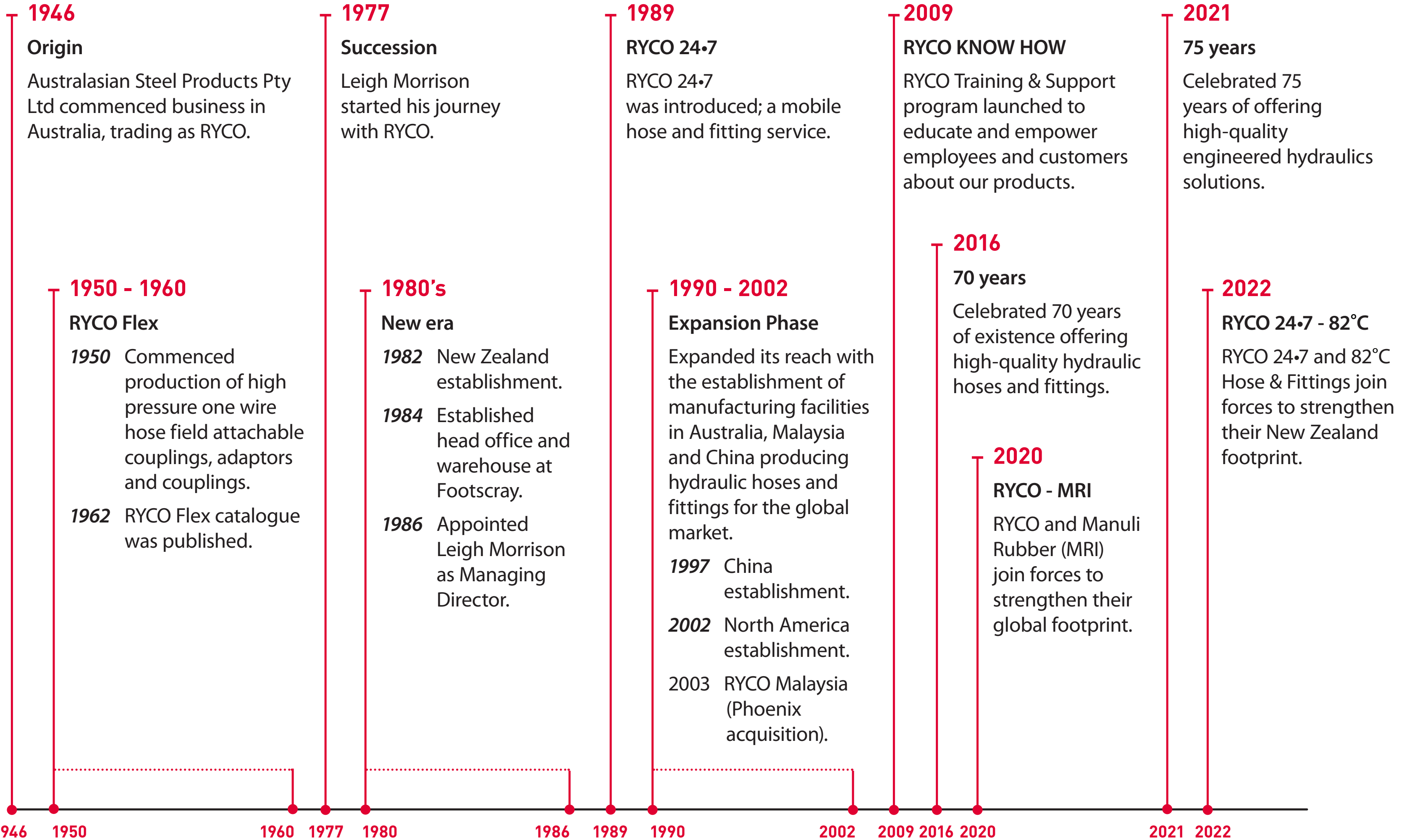


# GROWTH STORY

RYCO has built a strong reputation since it commenced manufacturing hydraulic hose and fittings in Melbourne, Australia over 75 years ago. Today, RYCO is known for its dynamic, world leading fluid conveying technology.



## Key Milestones



# GLOBAL PRESENCE

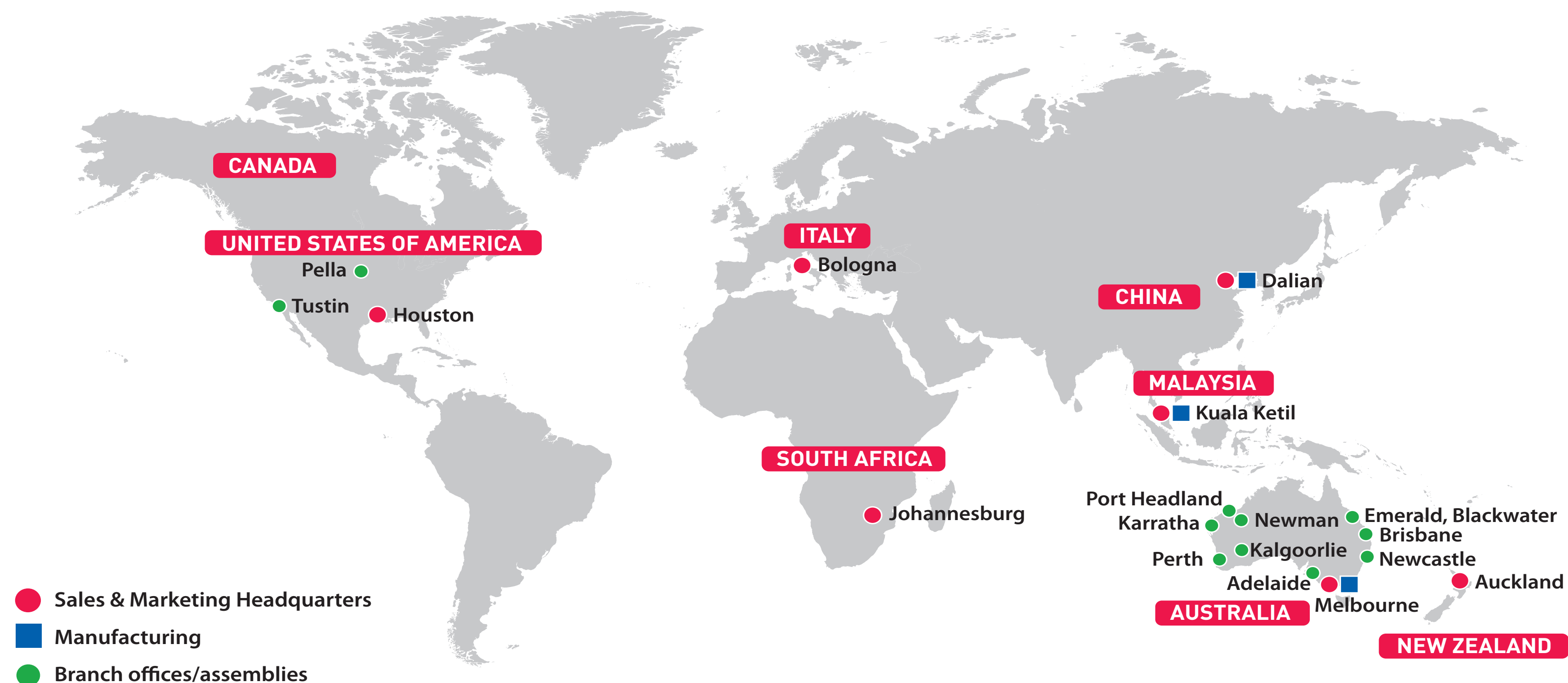
Strategically located manufacturing plants leverage locational cost efficiencies.

Global client reach due to its widespread network of sales and marketing headquarters.

Extensive network of branch offices, assembly lines facilitate 24·7 customer support accessibility.

Customer care, technical, market and sales support coupled with 75 years of industry expertise and RYCO KNOW HOW provide superior distribution support to clients enabling increased efficiency and continuous improvements.

For more than 75 years, RYCO has developed a global footprint with extensive manufacturing capabilities, strategically placed warehouses and robust distribution and support network ensuring seamless delivery of its quality products.



**Global HQ**  
Melbourne, Australia



Houston, United States



Kuala Ketil, Malaysia



Dalian, China



Johannesburg, South Africa



Auckland, New Zealand

# GLOBAL FOOTPRINT

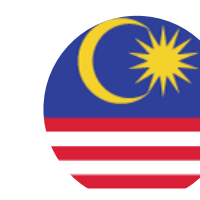
Through RYCO's extensive global footprint and network of loyal and committed distributors, RYCO can ensure quality products are delivered to clients, whenever and wherever required.



Australia



USA



Malaysia



China

	Australia	USA	Malaysia	China
<b>Headquarters</b>	Global headquarters based in Melbourne	5,200m <sup>2</sup> based in Houston, Texas	Located in Kuala Ketil	Located in Dalian
<b>Production Facilities</b>	7,800m <sup>2</sup> brand new, state-of-the-art warehouse	1,800m <sup>2</sup> in Pella, Iowa	15,400m <sup>2</sup> in Kuala Ketil	14,400m <sup>2</sup> in Dalian
<b>Staff</b>	195 employees across all locations	98 employees across all locations	269 employees	273 employees across Shanghai and Dalian
<b>Manufacturing</b>	Hose Assemblies in own facility	Hose Assemblies (Pella and Houston)	Hydraulic Hoses	Couplings (Dalian) Hose Assemblies (Shanghai)
<b>Distribution</b>	Third party customers in Australia	Across North and South America	To RYCO locations, and third party customers across the globe	To RYCO locations, and third party customers across the globe



# GLOBAL DISTRIBUTION NETWORK & OEM SUPPORT

Whilst the technical superiority of RYCO's products is a major competitive advantage, its well-established distribution network provides RYCO a global reach and the ability to deliver and support OEM requirements.

## Distribution Support

RYCO's strategically placed global warehouses and distribution network provide clients with complete port-to-port solutions including:

- High stock levels;
- Unparalleled Delivered In-Full, On-Time (DIFOT);
- Global network;
- Sales engineers;
- Customer care;
- myRYCO – e-Commerce;
- Smart logistics; and
- Distribution solutions.

RYCO's superior distribution coupled with marketing, sales, customer care and technical support has enabled businesses to increase efficiency and continuous improvement gains.

The company's continued investment in technology initiatives helps optimise order fulfilment and distribution.

RYCO do more than simply provide a product; they work with their clients "Connecting Partnerships" to provide complete port-to-port solutions

## OEM Support

RYCO is an industry expert that has actively partnered with OEM's to engineer and develop specialist technology used for hydraulic applications.

RYCO provides OEM's a range of services that help improve performance and implement cost efficiencies including:

- Comprehensive engineering solutions;
- Hose management systems;
- QRAM RYCO's Asset Management System;
- Vendor managed stock;
- Cost reduction programs;
- Kanban supply;
- Just-in-time (JIT) deliveries; and
- Reliable dispatch.

A key service to OEM customers is the on-site pre-production fluid routing service provided by RYCO 24-7 mobile connector specialists.



High Stock Levels



Comprehensive Ordering & Despatch



Local Manufacturing Facilities



Comprehensive Engineering Solutions



Cost Reduction Program



JIT Deliveries

# SECTOR CAPABILITIES

RYCO's engineering excellence, customer-focus and high quality products continue to keep RYCO in demand across numerous industry applications.



## Mining

- Mining equipment hydraulics
- On-site mobile service
- Shut down maintenance

RYCO has provided hydraulic hoses and fittings to the mining industry for over 75 years.

RYCO products are used in arduous mining applications globally and are of highest standard, meeting and exceeding performance standards specific to the mining industry.

RYCO mining products are MDG 41 safe.



## Underground

- Underground mining equipment
- FRAS rated products
- CROCSLEEVE for hose protection

RYCO provides engineering solutions to operators for underground mining equipment. Its trademark products CROCSTOP System and JSEAL™ coupling are ideal for underground mining equipment.



## Oil & Gas

- CROCSLEEVE for hose protection
- Hydraulics for offshore oil rigs
- Onshore hydraulic equipment

RYCO's JSEAL™ coupling and CROCSLEEVE products provide a leak-free abrasion resistant solution that enables reduced environmental impact and contamination, giving them a competitive advantage in the industry.

RYCO's 3.1 certified stainless steel range also ensures full traceability and matched systems reduce the chance of error, ensuring optimum performance and reliability.



## Agriculture

- Cane harvesting hydraulics
- Crop harvesting hydraulics
- Hydraulics for equipment

RYCO provides expertise in port-to-port solutions for agricultural OEM's and farming communities.

RYCO's products are strong, flexible, durable, light and suited to the demanding farming conditions.

RYCO products can be found on a range of agricultural equipment, from cane harvesters, crop harvesters, laser levellers, seeders, sprayers, ploughs, tractors, and bulldozers.



## Forestry

- Hydraulics for forestry harvesting
- High pressure rotary coupling
- Felling heads hydraulics

Decades of global experience has enabled RYCO to develop a range of products specifically suited for the forestry industry.

RYCO In-Line Swivels work at the highest pressures with the lowest torque and eliminate hose twist.

RYCO's products are engineered to perform at higher pressures and last longer than its competitors' products.



## Construction

- Excavator hydraulics
- Road roller hydraulics
- Hydraulics for construction industry

RYCO provides strong, light and flexible hose assemblies, designed to meet weight and volume restrictions on construction equipment.

Its total on-site hose management systems assist construction companies with improved production output.

RYCO products can be found in use in road construction, earth moving, cement mixers, cranes and forklifts.

# SECTOR CAPABILITIES

RYCO's focus on high quality and durable products ensures that the business is the best choice for the specialist requirements of many high demand industries.



## Industrial Application

- Hydraulics for steel and paper mills
- Hydraulics for harsh and light environmental manufacturing
- Hydraulics designed for steel works and refineries

Whether it's light industry, large steel works or refineries, RYCO products are designed to withstand the high pressures and demanding applications of the industrial environment.

For over 75 years, we have been supplying hydraulic hoses and fittings to the manufacturing and processing industries – for plant equipment, mobile equipment, transports, forklifts, cranes, basic circuits, and others.



## Transport

- Abrasion, flame, and weather resistant hoses
- Hoses suited for medium to high-pressure oil and air applications
- Heavy duty applications for rail and off-highway

RYCO supports the transport industry, anything from buses, coaches, trains, trailers, light to heavy vehicles and much more ensuring the tough performance requirements of the industry are met.

Whether it is on road, off road or offshore, RYCO has the product portfolio and innovative technology that meets and exceeds the highest of standards.



## Energy

- Electricity supply plant hydraulics
- Renewable windmills and solar hydraulics
- Hydraulics for electricity production

RYCO supports energy operations particularly in relation to electricity and renewable energy.

The RYCO ISOLATOR™ helps isolate and protect technicians operating in the vicinity of high voltage feed lines.

Trusted by the energy industry, RYCO's branding and identification systems help reduce risk by eliminating errors and therefore, minimising downtime and reducing costs.



## Marine

- Hydraulics for naval operations
- Commercial vessel hydraulics
- Infantry mobility vehicle hydraulics

RYCO supplies the global marine industry with quality hydraulic hoses and fittings.

RYCO provides products as per the specialist requirements of commercial and Defence vessel operations.

Its products are designed to the highest standards, offering integrated solutions that work reliably under extreme pressure.



## Defence

- Hydraulics for bushmaster vehicles
- Defence vessel hydraulics
- Infantry mobility vehicle hydraulics

RYCO designs and delivers hydraulic hose systems that meet the rigorous demands of defence applications.

RYCO is an accredited supplier of defence equipment to the Australian Defence Force, the US Department of Defence and to the Australian Defence Industry Group.



## Extreme

- Hydraulics for Collins class submarines
- Hydraulics for extreme environment
- ASC compliant hydraulics

RYCO provides hydraulic hose assemblies for the Australian Submarine Corporation (ASC) that are suited to operate for prolonged periods of time without needing to be serviced.

RYCO is the only Australian manufacturer with the design and technological capabilities and testing facilities to satisfy the ASC's strict requirements.

## PRODUCT & SERVICE OVERVIEW

# RYCO PRODUCT OFFERING

RYCO designs, manufactures and distributes a comprehensive range of hydraulic and industrial hoses and fittings, offering to RYCO customers over 8,000 individual items. Its products are known in the market for durability, efficiency and high quality.



## Hoses

RYCO manufactures high quality, abrasion resistant and accredited hydraulic hoses covering a broad range of international standards.

RYCO also supplies a range of specialty industrial hoses including rubber, PVC and Teflon.

Hoses are manufactured at RYCO's manufacturing plant in Kuala Ketil, Malaysia.

RYCO hydraulic hoses provide unparalleled performance, safety, and longevity.



## Couplings

RYCO manufacture hose couplings in many different styles and sizes, with a wide range of thread and connection types to meet global demand and industry specifications.

RYCO's couplings incorporate world leading technologies that provide superior performance and unparalleled quality.

RYCO is setting the standard of JIC fittings with its range of JSEAL™ couplings, which provide up to double the working pressure of other standard JIC connections.



## Adaptors

RYCO's adaptor range is a market leader and includes a wide variety of sizes, end styles, thread and connection types.

The adaptors provide Higher Technology and Greater Performance with an extensive range which includes: BSP, NPT & NPSM, JIC, METRIC, ORFS, SAE Threads, SAE Flanges, UNO (O RING BOSS), SUPERLOK, and RYCO WEO.

The range also includes stainless steel, quick fit tube adaptors, flanges and hammer unions.



## Filters

Filters are complementary to RYCO's product offering and are supplied by trusted third party suppliers.

Hydraulic filters include inline spin-on filters, heavy duty inline filters, combination filters, tank top filters, level and temperature gauges, suction strainers, clogging indicators, air-breather filters, push-on breather and diffusers.

RYCO introduces new filters each year in order to remain at the forefront of the industry.



## Accessories

RYCO provide efficient and durable hydraulic accessories to make your hose assembly fit together seamlessly.

RYCO's accessories are designed with speed and efficiency in mind so that your hydraulic hose assembly provides exceptional productivity and reliability. Our Accessories range includes Quick Release Couplings, Valves, Airline Couplings, R1620 Easy Test, Mounting Clamps & Accessories.



## Workshop Equipment

RYCO has your workshop needs covered with a full range of cut-off saws, crimping equipment and workshop essentials including RYCO Clean Kits, Seal Kits and much more.

RYCO's workshop equipment is designed and manufactured to RYCO's stringent safety and quality standards.





The basis of any successful business is a great product. Combine our quality product with great service, and you have a winning combination - RYCO 24•7.



### Call, Connect & Go

RYCO 24•7 is a key service providing extensive coverage specialising in mobile hydraulic hose, fittings, service and replacement.

Launched in 1989, RYCO's 24•7 mobile service division offers comprehensive services including emergency breakdown, programmed maintenance, OEM support, installation and after market businesses for 24 hours a day, 7 days a week.

Since its inception it has increased its market coverage by establishing RYCO 24•7 service centres, Mobile Connector Specialists (MCS) and on-site container workshops globally.

### Key Features:

- RYCO has professionally trained and dedicated teams on call 24•7 offering technical expertise for all hydraulic and industrial systems.
- RYCO 24•7 operates an extensive network of trained MCSs that allow reduced machine downtime across industry applications.
- Service centres, MCSs and workshops support OEMs through development of hose assembly, design, configuration, installation and aftersales services.
- In conjunction with RYCO owned RYCO 24•7 operations. RYCO 24•7 also has a network of independent franchise owners providing assistance across industries such as mining, marine, defence, construction, industrial and utilities.
- RYCO 24•7 has developed a range of on-site hose assembly workshops and product storage containers which are ideal for operations in remote mining locations as well as construction, offshore and large manufacturing sites.





RYCO 24•7 offers a comprehensive service to many industries with emergency break down, programmed maintenance, OEM support, installation and after-market businesses. This service provides branding and marketing value to operators, functioning as independently owned and franchised offerings.



CALL, CONN  
133 24•7



### RYCO 24•7 Service Centre

RYCO 24•7 Service Centres, Mobile Connector Specialists and Onsite Container Workshops offer extensive national contract and Original Equipment Manufacturer support through the development of hose assembly design, configuration, installation and aftersales service.

### RYCO 24•7 Mobile Connector Specialist

Our professionally trained and dedicated teams are on call 24 hours a day, 7 days a week offering expert technical support for all types of hydraulic systems.



### On-Site Container Service Workshop

RYCO 24•7 provides a Hose Shop and Assembly Workshop on wheels. Step inside a Mobile Connector Specialist vehicle and you will find a hose saw, crimper, compressor and many more equipment items and tools for the fabrication of custom hose assemblies right at the job-site.

New hose assemblies are accurately cut to length, cleaned using the RYCO Hose Clean System, crimped and checked before every installation. Inventory on board includes a large selection of braided and spiral hoses, fittings including standard and metric thread forms, Adaptors, Quick Release Couplings, and much more to suit all kinds of machines and applications.

Mobile Connector Specialists also carry hydraulic oil, spill kits and other items on their vehicles so that they can provide a complete on-site service and get your equipment up and running as quickly as possible.



# RYCO KNOW HOW TRAINING SUPPORT

As part of RYCO's customer integration strategy, RYCO KNOW HOW provides training and ongoing education to ensure safe working practices including application of RYCO products.

## Online & On-Site Support

RYCO is committed to ensuring the safety and well-being of its clients, employees and all those affected by its activities. Safety is integral to RYCO's activities and paramount across all its operating segments.

RYCO KNOW HOW offers a series of hosted training programmes to promote and develop safe working practices including the application of RYCO products.

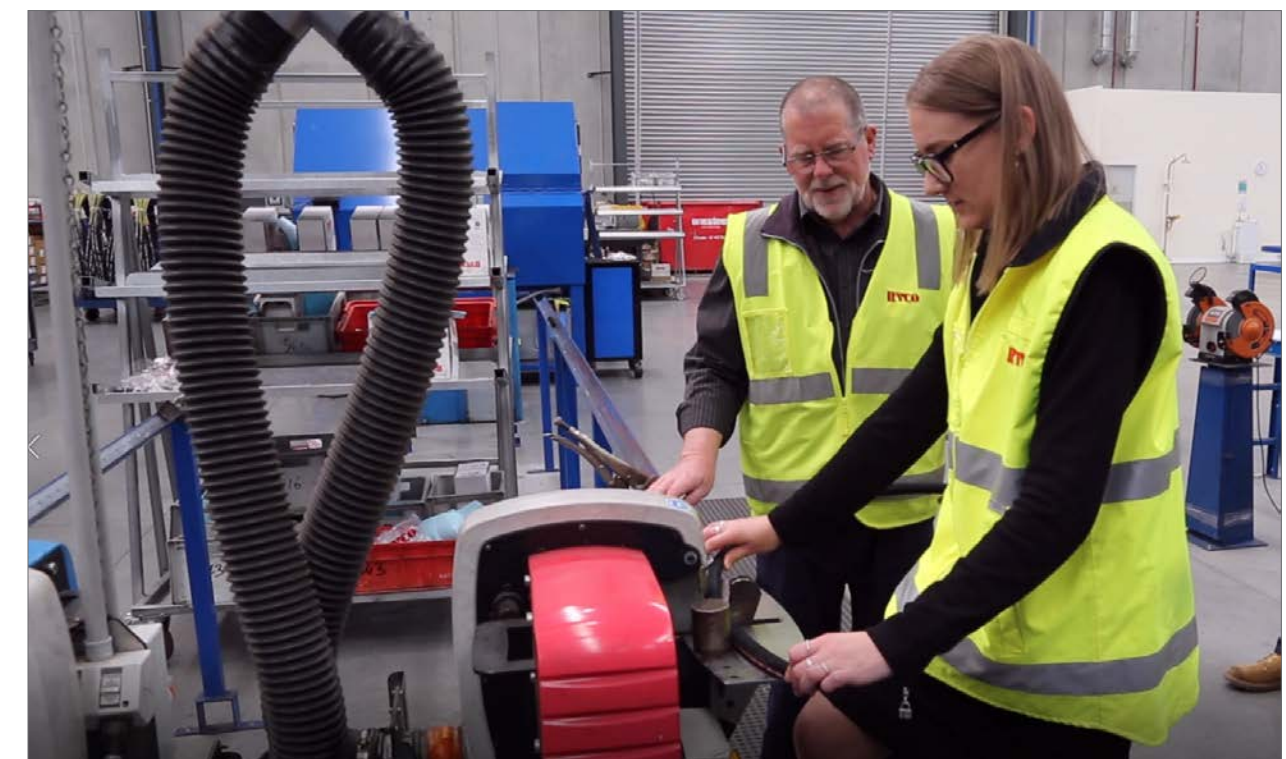
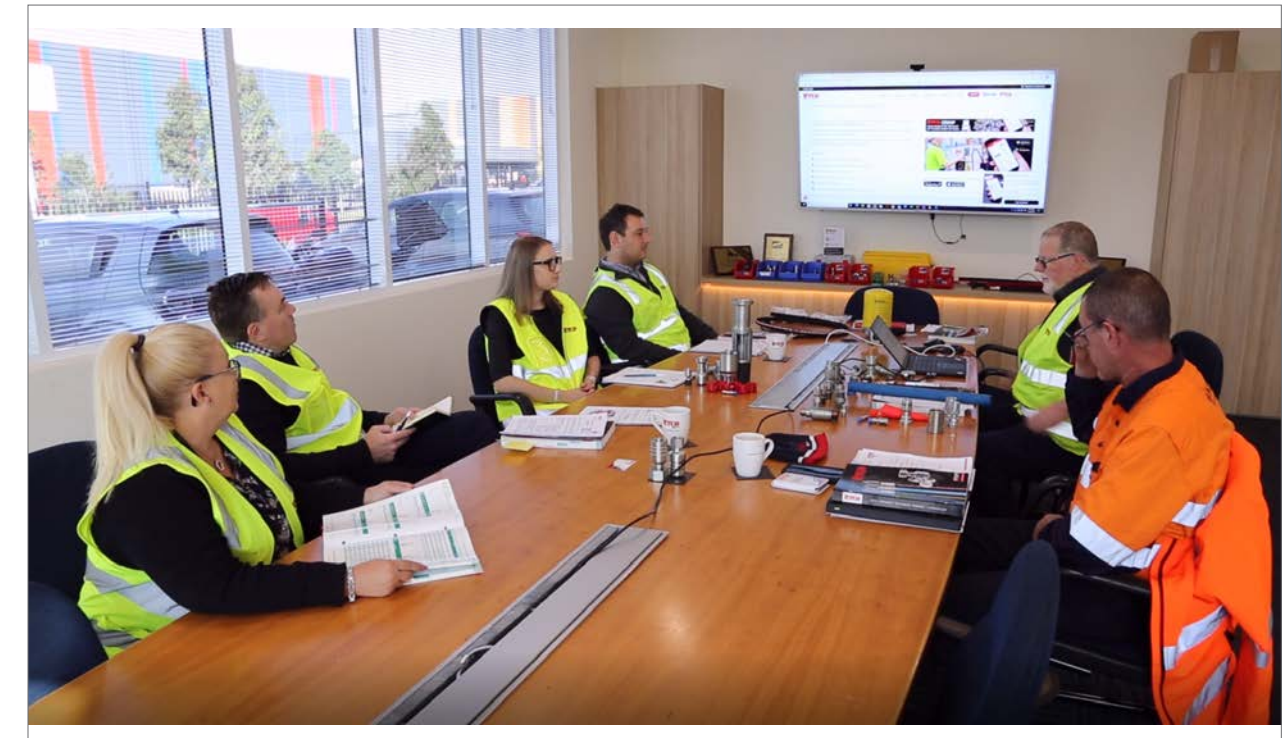
RYCO KNOW HOW training modules meet the varied needs of the hydraulic hoses and fittings industry.

### *Training modules include:*

- Product Technical Manual – Hydraulics;
- Hose Assembly;
- Mobile Connector Specialist (Nationally Accredited);
- Hose Assembly Visual Evaluation (HAVE)
- Online Training Modules.

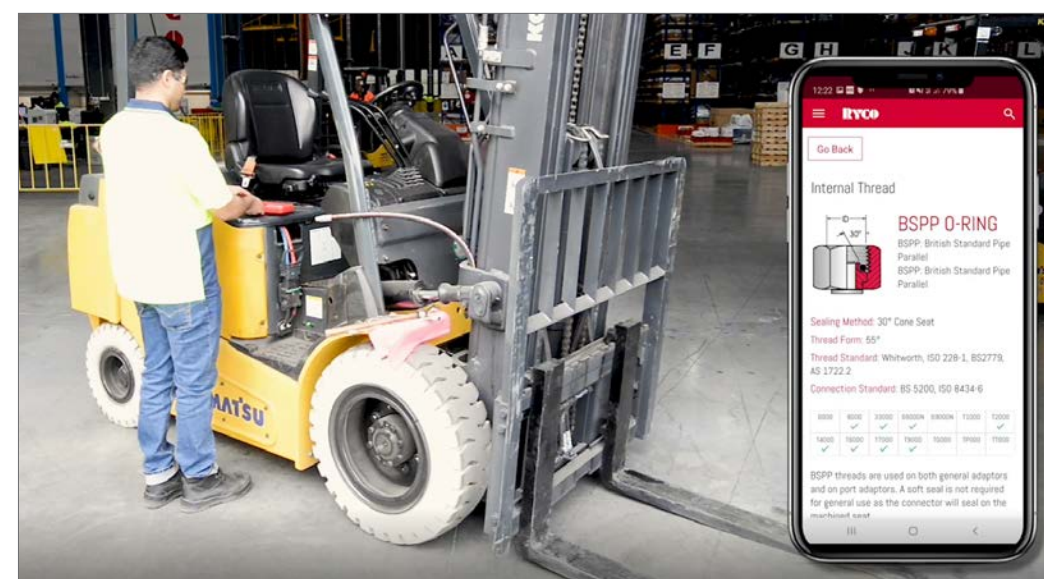
Training is suitable for RYCO employees, franchise operators, distributors, customers and end users.

Mode of delivery include on-site face-to-face training sessions (conducted at RYCO and customer/OEM facilities) and online interactive self-paced modules.



# RYCO APPLICATIONS

**RYCO**  
**RY80**



## RYCO Thread ID Mate

In a one-of-its-kind offering, RYCO has developed the RYCO Thread ID Mate application.

The Thread ID Mate application enables users to identify hydraulic threads and connectors on the go.

Through an intuitive and simple identification process, the app helps find detailed information about threads, types, specifications, sizes and more.

### Key Highlights:

- Intuitive step-by-step identification process
- Search a thread by name
- Detailed page for every thread
- Complete pictorial list



## RYCO Crimp

RYCO Crimp is your source for RYCO crimp specifications. Find the most up-to-date specifications to accurately and safely crimp RYCO hydraulics hoses with matched RYCO fittings.

This intuitive application enables you to get your crimp specifications within your very own workshop or in your mobile service truck using your tablet or mobile phone device!

Begin by selecting your RYCO hose series, size, and part number with your coupling series and you are on your way to access all the specifications necessary to crimp your hydraulic hose.

### Key Highlights:

- Picture Guide of selected RYCO Hose & Coupling Series
- Critical Crimp Details such as Crimp Diameter (+/-) & Mark Length
- Colour Coded Rapid Die Colour & Number
- Add Common Crimp Specifications to Favourites
- Portrait & Landscape Modes

**Download RYCO Thread ID and RYCO Crimp Applications Today!**



# RYCO ASSET MANAGEMENT SYSTEM

RYCO offers a unique and digitally innovative program, QRAM, that leverages technology to improve operational efficiencies, reduce operating costs and increase asset performance.

## Asset Management

QRAM is RYCO's asset management program which allows customers to identify and replace assets quicker, improving customer retention and increasing after-market sales.

The program is delivered as a cost effective Software-as-a-Service (SaaS) platform enabling full traceability, tracking and utilisation of assets, minimising downtime and costs.

Its key features are a 24/7 ordering service, asset tracking and transfer, and full traceability on all products through a 'scan-to-sale' system where contact details and part numbers are easily identified by scanning the asset label.

It is a web based application designed to enable hose identification asset tracking, audit and inspection, preventative maintenance and includes a reporting system tool.

- **Innovative Hose Identification:** QRAM is able to record the position of an asset within the circuit of a machine and the app can be accessed anywhere and anytime from a compatible mobile device on iOS and Android platforms, making identifying assets an easy task.
- **Scan & Go:** QRAM gives operators instant access to essential asset information, including the machine hours, replacement details and inspection history of a specific asset.
- **Life Cycle Management:** QRAM offers Hose Assembly Visual Evaluation (HAVE) and Hose Assembly Lifespan Predictor (HALP®) to assess the life of hydraulic hose assemblies.
- **RYCO HALP®** helps design a preventative schedule of maintenance and testing for each hose assembly or group of hose assemblies, which aims to maximise hose lifespan.
- **RYCO HAVE** is a methodology to determine visual external defects, wear and tear, or abuse; whilst the service life of a hose cannot be determined upon inspection alone, QRAM records the service life hours of each asset.
- **Reporting:** QRAM gives operators access to essential and secure asset information. It also provides analysis on field failures and updates when assets are due for replacement and enables scheduling of preventative maintenance programs and the re-ordering of assets.

### QRAM Benefits:

- Speed to market
- Asset tracking
- Warranty reduction
- Ease of supply
- Global GEO traceability
- Easy identification
- 100% accuracy
- Asset transfer

## QRAM Process



### 1. Print Label

QRAM labels provide digital link to asset information.



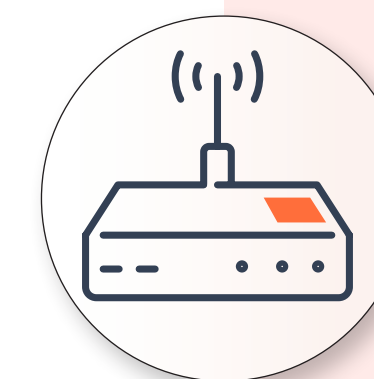
### 2. Scan Label

Instant access to secure and essential information.



### 3. Asset Replacement

Customers can find the nearest store location or request RYCO 24•7 support.



### 4. Reporting

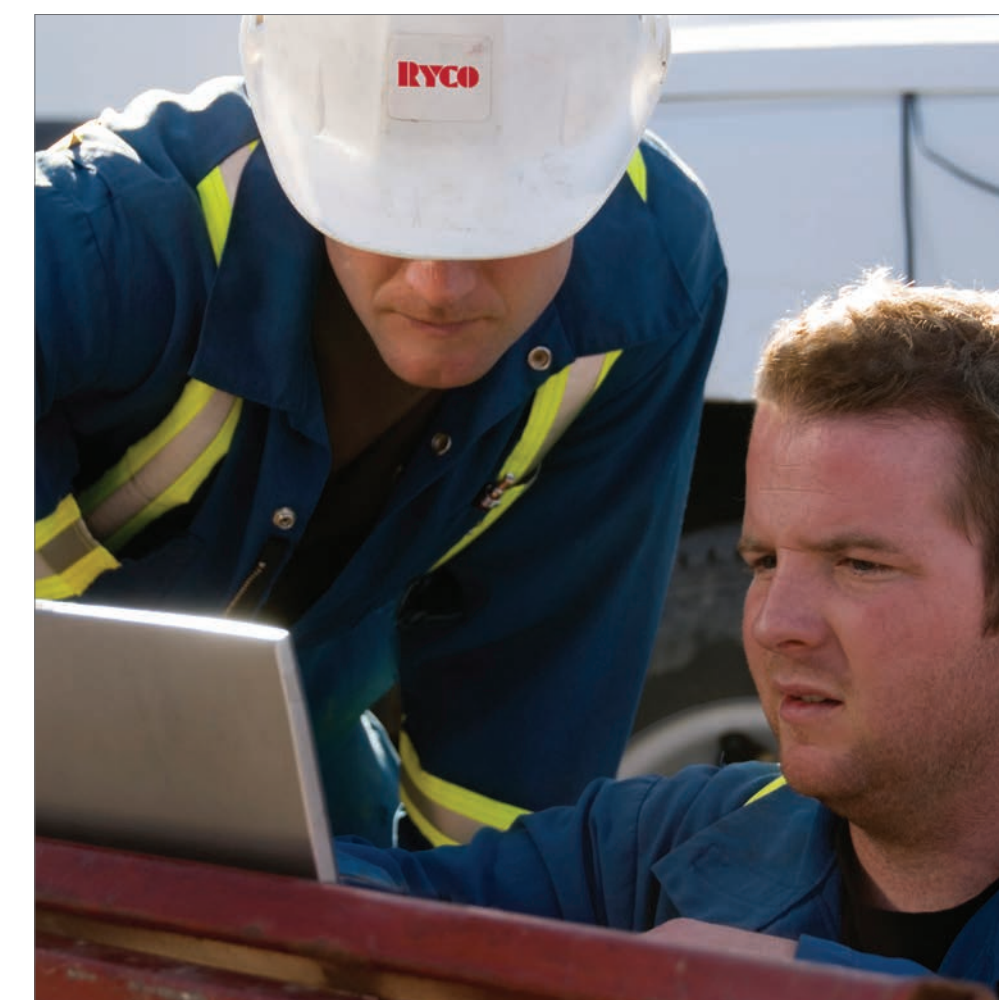
The app highlights unexpected failures, hot-spots and usages.



# RYCO HALP®

RYCO HALP®, accessed via QRAM predicts the estimated lifespan of hose assemblies for given conditions and environments.

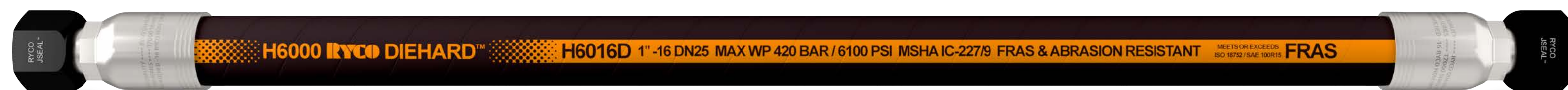
# RYCO HALP® HOSE ASSEMBLY LIFESPAN PREDICTOR



**1** RYCO HALP®, accessed via QRAM predicts the estimated lifespan of hose assemblies for given conditions and environments.

**2** RYCO HALP® aids in determining the optimum time to carry out preventative maintenance by providing an estimated prediction when hose assemblies should be replaced before end of life.

**3** HALP® keeps you on track with a scheduled hose maintenance solution. By being proactive RYCO HALP® assists in risk management and helps to prevent fluid injection injuries.



The HALP® system helps you design a preventative schedule of maintenance and testing for each hose assembly or groups of hose assemblies. You can engineer out hot-spots, adjust preventative maintenance schedules and replace assets before they fail. This in turn means predictive life spans of assets, scheduled inspections and work orders are undertaken with confidence. When coupled with QRAM, HALP® keeps you on track with scheduled hose maintenance solution.

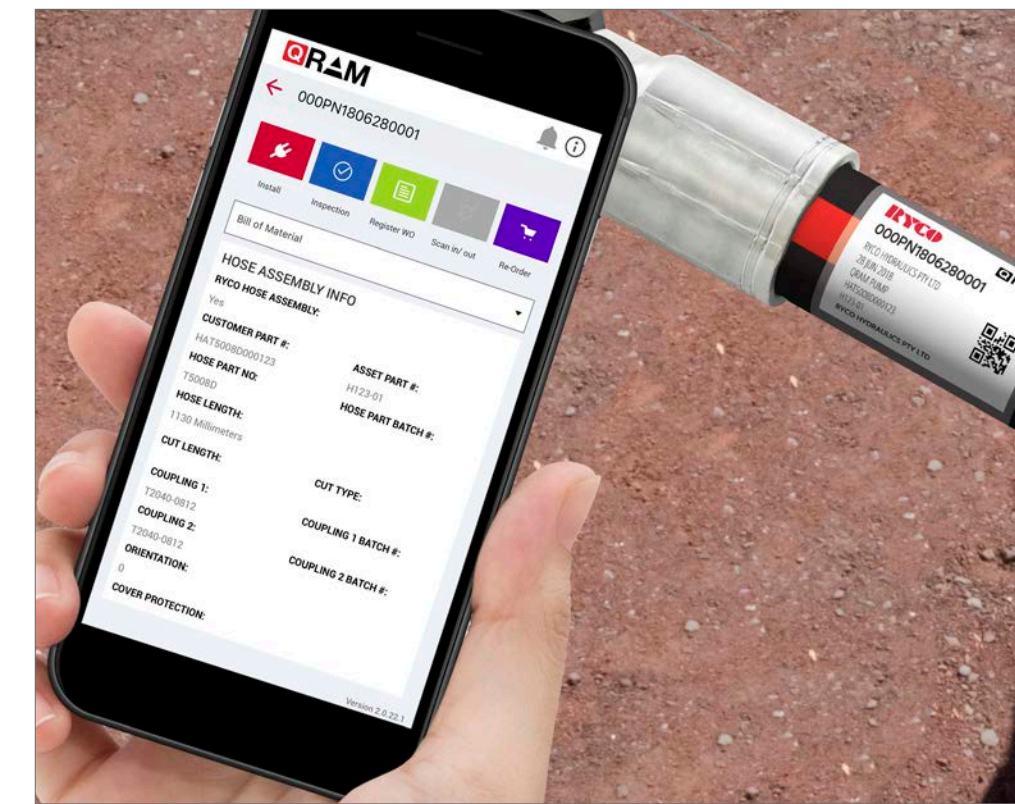
# RYCO HAVE

Hydraulic hose assemblies have a finite service life. This service life is dependent upon many factors that cannot be determined upon visual inspection alone. HAVE is a methodology of determining visual external defects, wear and tear, or abuse.

## HAVE HOSE ASSEMBLY VISUAL EVALUATION IT'S AS EASY AS 1-2-3!



**1** Free from obvious external defects and/or abnormalities.



**2** Non-urgent external deterioration and/or abnormalities that require the hose assembly to be scheduled for replacement at the next service.



**3** Urgent external deterioration. Possible safety issue. Replace immediately.

Hydraulic hose assemblies have a finite service life. This service life is dependent upon many factors that cannot be determined upon visual inspection alone. HAVE is a methodology of determining visual external defects, wear and tear, or abuse. HAVE does not provision or determine the portion of the hose assembly life that has been consumed.

RYCO now have an asset management system – QRAM which can assist you to complete the HAVE methodology. From just a touch of a button, QRAM gives operators and hose assemblers instant access to essential hose assembly information. Ensuring a reduction in high hidden costs and productivity losses.



# RYCO 24•7 FACILITIES

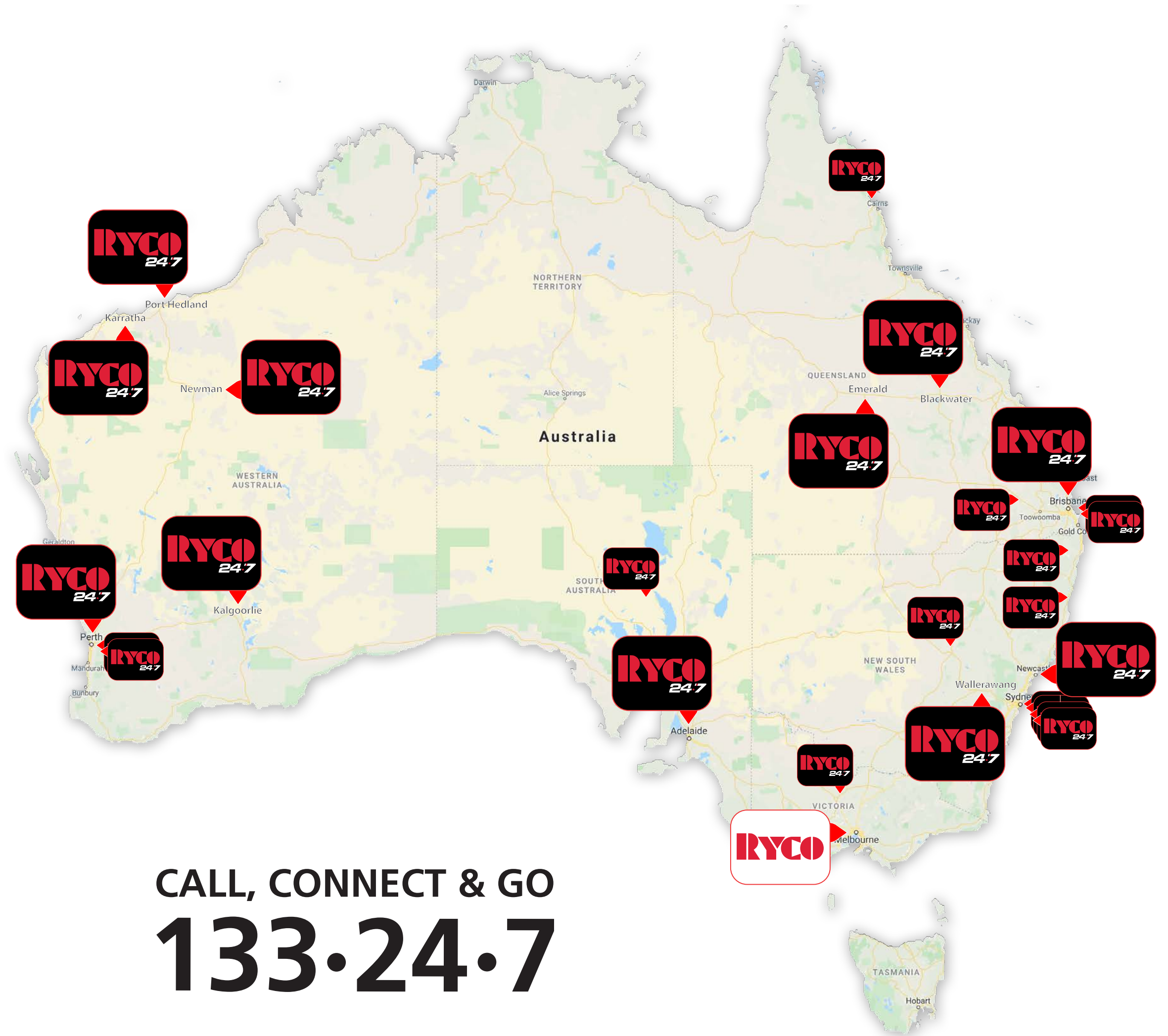
RYCO Hydraulics continues to grow, establishing new enterprises around the globe to service all of our customer's needs.



## Local Australian Branches

RYCO have branches and RYCO 24-7 Service Centres in all major cities around Australia:

- **Global Head Office Melbourne**  
99 Calarco Drive, Derrimut, Victoria, Australia 3026
- **RYCO 24•7 Adelaide**  
c/o BL Shipway, 217 Richmond Road, Richmond, South Australia, Australia 5033
- **RYCO 24•7 Blackwater**  
6 Jarrah Street, Blackwater, Queensland, Australia 4717
- **RYCO 24•7 Brisbane**  
97 Northlink Place, Northgate, Queensland, Australia 4031
- **RYCO 24•7 Emerald**  
8 Old Sheep Yard Place, Emerald, Queensland, Australia 4720
- **RYCO 24•7 Kalgoorlie**  
16 Broadwood Street, West Kalgoorlie, Western Australia, Australia 6430
- **RYCO 24•7 Newman**  
Unit 1/37 Woodstock Street, Newman, Western Australia, Australia 6753
- **RYCO 24•7 Karratha**  
Unit 1, 12 Coolawanyah Road, Karratha, Western Australia Australia 6714
- **RYCO 24•7 Newcastle**  
14 Ironbark Close, Warabrook, New South Wales, Australia 2304
- **RYCO 24.7 Perth**  
47 Tacoma Circuit, Canning Vale, Western Australia, Australia 6155
- **RYCO 24•7 Port Hedland**  
12 Manganese Street, Wedgefield, Western Australia, Australia 6721
- **RYCO 24•7 Wallerawang**  
Unit 4 / Lot 42 Main Street, Wallerawang, New South Wales, Australia 2845



CALL, CONNECT & GO  
**133•24•7**



RYCO QUALITY

# RYCO POLICIES

RYCO is committed to protecting the health and safety of employees, contractors, visitors and the general public in the workplace. .



## Occupational Health and Safety Policy

RYCO specialises in the design, manufacture and sales of a comprehensive range of high pressure hydraulic hoses and fittings. The Company operates on a global scale and its products service a wide range of industrial applications.

RYCO is committed to protecting the health and safety of employees, contractors, visitors and the general public in the workplace. RYCO shall fulfil this commitment through a health and safety management system that is integrated with RYCO's business activities related to products, services and people.

RYCO employees, contractors and visitors have a duty of care to take reasonable care for their own health and safety and for the health and safety of persons who may be affected by their actions and inactions in the workplace.

RYCO will take reasonably practical steps to improve workplace health and safety conditions and to prevent injury and illness to its employees, contractors, visitors and the general public.

This Policy applies to RYCO fixed and mobile workplaces and persons attending those workplaces. This Policy will be reviewed from time to time for Continuous Improvement, changes to legislation, industry best practices and policy directions within RYCO.

## Environmental Policy

RYCO specialises in the design, manufacture and sales of a comprehensive range of high pressure hydraulic hoses and fittings. The Company operates on a global scale and its products service a wide range of industrial applications.

RYCO is committed to compliance with applicable environmental legislation, regulations and any other requirements to which RYCO subscribes.

RYCO operates a program of continual improvement in environmental performance and pollution prevention, aiming to minimise the environmental impacts resulting from relevant activities.

This Policy applies to RYCO fixed and mobile workplaces and persons attending those workplaces. This Policy will be reviewed from time to time for Continuous Improvement, changes to legislation, industry best practices and policy directions within RYCO.



# QUALITY ACCREDITATIONS

RYCO prides itself on complying with and exceeding international standards and third party accreditations.



## Quality Standards

RYCO is committed to offering high quality products and this commitment, combined with its positive track record, is a key factor in the business's success.

RYCO as a manufacturer of quality high pressure hydraulic hoses and fittings ensures that its products meet and exceed industry standards and are accredited by independent third party organisations.

The company aims to supply products and services that meet or exceed industry standards including AS, BCS (NCB), BS, EN (DIN), ISO, JIS and SAE:

- RYCO recommends SAE J1273 as a guide to the selection, manufacture, installation and servicing of hose assemblies.
- RYCO maintains third party product type approval accreditations and complies with or exceeds industry AS, BCS (NCB), BS, EN (DIN), ISO, JIS and SAE standards.
- RYCO is certified to the current version of ISO 9001 "Quality Management System" by the British Standards Institute.

All RYCO manufacturing centres are ISO 9001 "Quality Management System" certified.

The bottom line in quality control and quality assurance ensures customer confidence and customer satisfaction.

To deliver the required quality demand, RYCO specifically designs and manufactures hydraulic hoses and fittings to match each other.

RYCO design incorporates quality, safety and environmental aspects. The Business' manufacturing plants also maintain certified ISO Safety and Environmental Management Systems.



## Certified & Accredited by Major Industry Groups

RYCO maintains third party product approvals and is a member of, and contributor to, leading main industry groups including:

- Australian Gas Association
- American Bureau of Shipping
- Bureau Veritas
- China Classification Society
- CLASSNK – Nippon Kaiji Kyokai
- DNL – GL
- Department of Transport (USA)
- Korean Register
- Lloyd's Register
- MA-KA Mining Products Safety Approval and Certification
- Marine Equipment Directive
- Australia – Mining Design Guidelines (41)
- P-GOST Quality & Safety Declaration of Conformity
- Registro Italiano Navale
- US Coast Guard



## RYCO LOCATIONS

### AUSTRALIA +61 1300 111 247

**RYCO GLOBAL HEAD OFFICE - MELBOURNE AUSTRALIA**  
99 Calarco Drive, Derrimut, VIC 3026

**BRISBANE**  
97 Northlink Place,  
Northgate, QLD 4013

**PERTH**  
47 Tacoma Circuit,  
Canning Vale, WA 6155

**ADELAIDE**  
BL Shipway & Co.  
217 Richmond Road,  
Richmond, SA 5033

**NEWCASTLE**  
14 Ironbark Close,  
Warabrook, NSW 2304

### NEW ZEALAND +64 800 842 872

**AUCKLAND**  
4 Autumn Place, Penrose, Auckland 1061

### USA & CANADA +1 866 821 7926

**USA HEAD OFFICE - HOUSTON TEXAS**  
1616 Greens Road, Houston, Texas 77032

**CALIFORNIA**  
1150 Valencia Avenue,  
Tustin, California 92780

**ONTARIO**  
32 Airpark Place, Guelph,  
Ontario, Canada N1L 1B2

**IOWA**  
1007 West 10th Street,  
Pella, Iowa 50219

### CHINA +86 411 8886 0006

**DALIAN**  
38 Ying Ri Road, Ying Cheng Zi Industrial Zone,  
Gan Jing Zi District, Dalian 116036

### MALAYSIA +60 4 415 2500

**PENANG**  
Plot 207 Kuala Ketil Ind. Estate, Kuala Ketil, Kedah 09300

### SOUTH AFRICA +27 10 4100 500

**JOHANNESBURG**  
340 Roan Crescent, Corporate Park, North Midrand 1685

### EUROPE +39 051 646 4911

**ITALY**  
Manuli Rubber Industries S.p.A.  
Via L. Bizzarri, 19 - 40012 Calderara di Reno (Bologna), Italy



## RYCO 24•7 SERVICE CENTRES

### AUSTRALIA 133•24•7

#### NEW SOUTH WALES

Bellingen  
Batemans Bay  
Casino  
Dubbo  
Goulburn  
Ingleburn  
Mascot  
Newcastle  
Penrith  
Wallerawang  
Wetherill Park

#### QUEENSLAND

Brisbane  
Blackwater  
Charter Towers  
Dalby  
Emerald  
Fraser Coast  
Northside

#### SOUTH AUSTRALIA

Cowell  
North Adelaide  
Richmond  
Roxby Downs  
Whyalla

#### VICTORIA

Bendigo  
Carrum Downs  
Melbourne

#### WESTERN AUSTRALIA

Kalgoorlie  
Karratha  
Newman  
Port Hedland  
Wangara

#### NORTHERN TERRITORY

Darwin

### NEW ZEALAND 0800•111•24•7

#### NORTH ISLAND

Auckland  
Gisborne  
Hawkes Bay  
Hamilton  
Masterton  
Northwest  
Otorohanga  
Palmerston North

Pukekohe  
Taupo  
Waikato  
Wellington  
Whakatane  
Whangarei

#### SOUTH ISLAND

Christchurch  
Dunedin  
Invercargill  
Nelson  
Temuka

### USA & CANADA +1 844•700•0247

#### TEXAS

Houston

