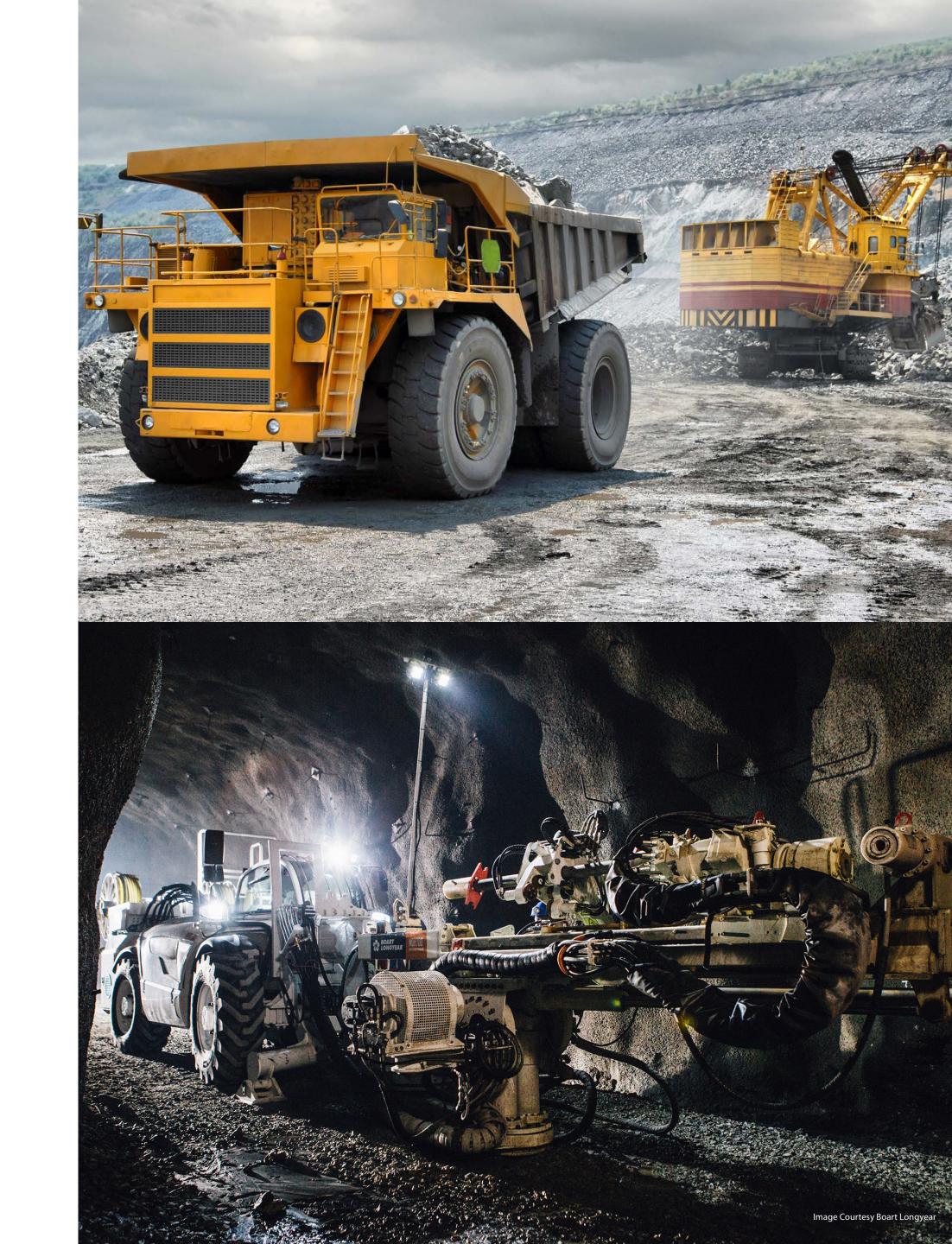


# MINING & UNDERGROUND CAPABILITY



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## MINING CAPABILITY

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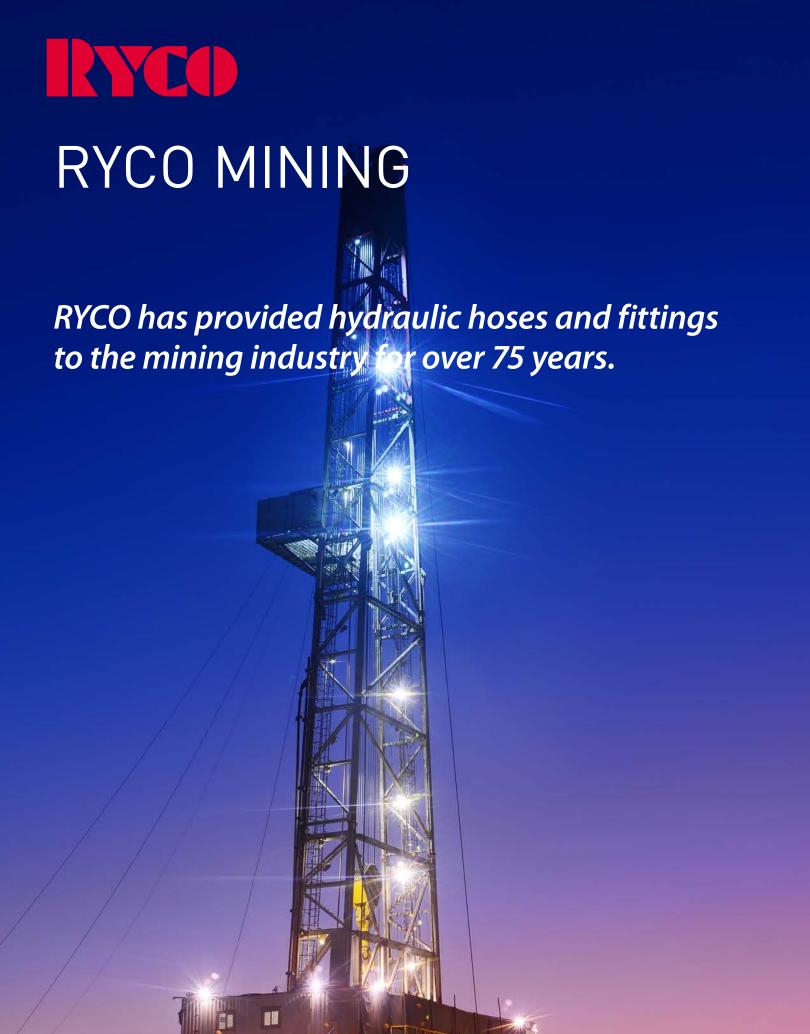












#### Mining

RYCO is a specialist supplier of hydraulic hoses and fittings to the mining industry for over 75 years.

With our extensive knowledge of the mining industry, many mining operations around the world rely on RYCO's total on-site hose management system to achieve substantial cost reduction benefits.

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

Whether it is for heavy off-road mining vehicles, mobile mining equipment, lifting buckets of ore, or shifting mountains of overburden, you will find RYCO products hard at work.

#### **Key Features:**

- Mining equipment hydraulics
- On-site mobile service
- MDG 41 safe
- Shut down maintenance

#### Our People Are Our Greatest Asset

Mining operations around the world rely on RYCO. Dynamic and dedicated our teams bring together the best and most experienced people in the industry.

The focus is to continually improve on our current business activities and ensure we offer quality, technology, and service to the resource industry, with safety being our prime objective.

Our teams work for you. From on time order despatch and cost reduction to solving engineering problems, everything we do is designed to make sure your operation runs as smoothly as possible, with minimal downtime.

#### **RYCO Safety Zone**

The RYCO Safety Zone provides an increased margin of operational safety when using RYCO matched hose and fittings.

All RYCO hydraulic hose and fittings are designed and manufactured to meet and exceed relevant industry standards.

RYCO produces hydraulic hose that is dimensionally consistent and when matched with RYCO fittings, results in increased safety and performance.



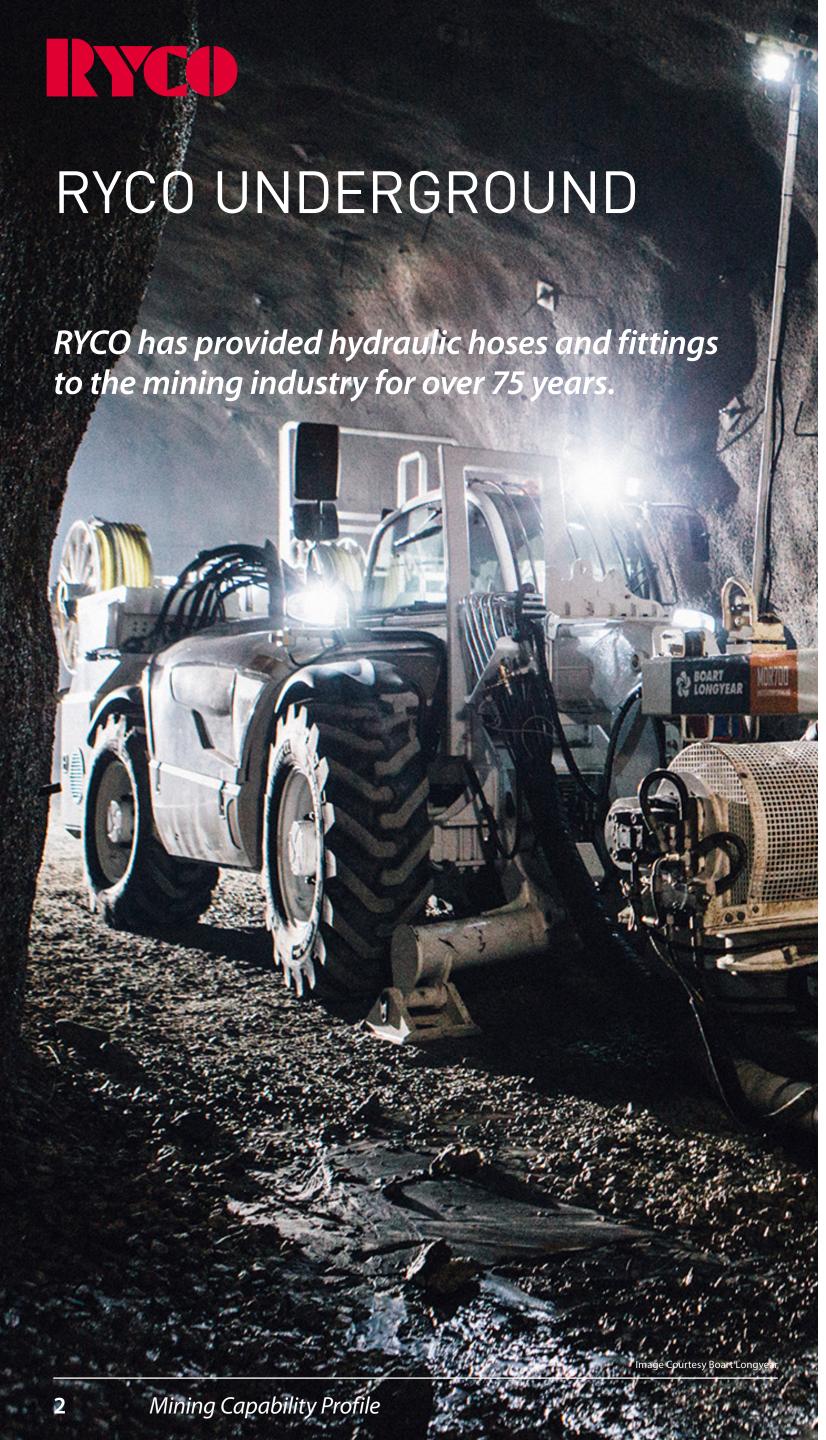
#### **RYCO Safety Barrier**

The RYCO CROC System is a 3-in-1 safety device and works as a burst suppressor, whip check, and protects the hose from abrasion.

It is used on hose assemblies where an unacceptable residual risk remains with the potential harm to personal in the event of a hose assembly failure.

#### **Key Features:**

- CROC System is MDG 41 compliant and allows easy assessment.
- Reliable and easy to assemble and take apart with only a few basic tools.
- Allows full visual verification if hose failure occurs.
- Offers hose assembly bundling solution.



#### **Underground**

By partnering with RYCO, underground mining operators have access to RYCO's industry expertise and vast knowledge and experience in problem solving underground.

We provide engineering solutions and auditing of underground mining equipment enabling cost reduction coupled with rapid response services.

RYCO's CROC System and JSEAL™ are some of the products which can be found on underground mining equipment such as long wall mining equipment, drill rigs, continuous miners, man transporters, bonded hose sets, AFC pan line hosing and shuttle cars.

#### **Key Features & Highlights**

- Underground mining equipment
- FRAS rated products
- CROCSLEEVE for hose protection
- Safety device CROC System
- Engineering solutions for operators
- MDG 41 safe

Many underground mining operations around the globe rely on RYCO's extensive knowledge of the mining industry and RYCO's large range of services to deliver them substantial cost reduction benefits.

#### MDG 41 Safe



MDG 41 is a document which was created in response to an increasing number of incidents involving high-pressure fluid injection injuries on mine sites.

RYCO have committed to OH&S and to MDG 41, and as such have developed products and strategies to assist our customers in understanding the requirements of the guideline.

#### **Matched Systems**

MDG 41 stipulates hose assemblies shall only be carried out using "Matched Hose and Fittings" (MDG 41 Clause 3.7.6.1 k). Our design teams create and stringently test the hoses and fittings together to ensure optimum performance and reliability.



#### **Connecting Partnerships**

Many underground mining operations around the globe rely on RYCO's extensive knowledge of the mining industry and RYCO's large range of services to deliver them substantial cost reduction benefits.

We work directly with OEMs to manufacture long wall shield overhaul kits and mono/rail hosing.



## RYCO HOSE & FITTINGS

The RYCO ISOBARIC Spiral hoses are tested to a minimum of one million impulse cycles to deliver extended hose life cycle, and exceptional performance and durability.



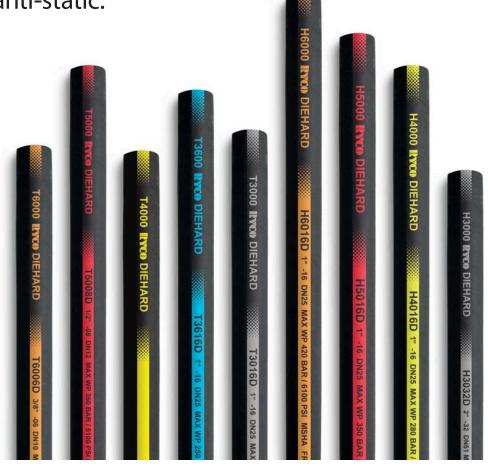
The RYCO ISOBARIC H series (Spiral) hose range is highly flexible and betters, by up to a half, the minimum bend radius specified by SAE and EN. They cover high, very high or extremely high-pressure hydraulic oil lines.

The RYCO ISOBARIC Spiral hoses are tested to a minimum of one million impulse cycles to deliver extended hose life cycle, and exceptional performance and durability.

Lighter weight means that your hydraulic system is more compact and economical and is reinforced with multiple alternative layers of spiralled high tensile steel wire.

Some leading hydraulic ISOBARIC spiral hoses that RYCO design, manufacture and produce include H3000D, H3000S, H5000C and much more.

ISOBARIC braid hoses offer a choice of three covers including abrasion, flame resistant and anti-static.



#### Fire Suppression Hose

T1F is a one wire braid hose that meets or exceeds the performance requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

Typical applications of T1F include Fire Suppression Systems off-road vehicles, mining equipment and stationary engines. The hose is coloured red, for easy identification as part of the First Suppression System.

The tube compound is black, oil resistant synthetic rubber that is resistant to aqueous film forming foam, dry chemical powder, carbon dioxide, and water-based fire extinguishing agents.

T1F cover is red, heat resistant, abrasion resistant and oil resistant rubber. The cover also complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

# RYCO made T1F hose assemblies have the following third-party approvals:

ABS, DNV-GL, LR, MED, USCG, GOST-R, BV, RINA and KR.



























### 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.



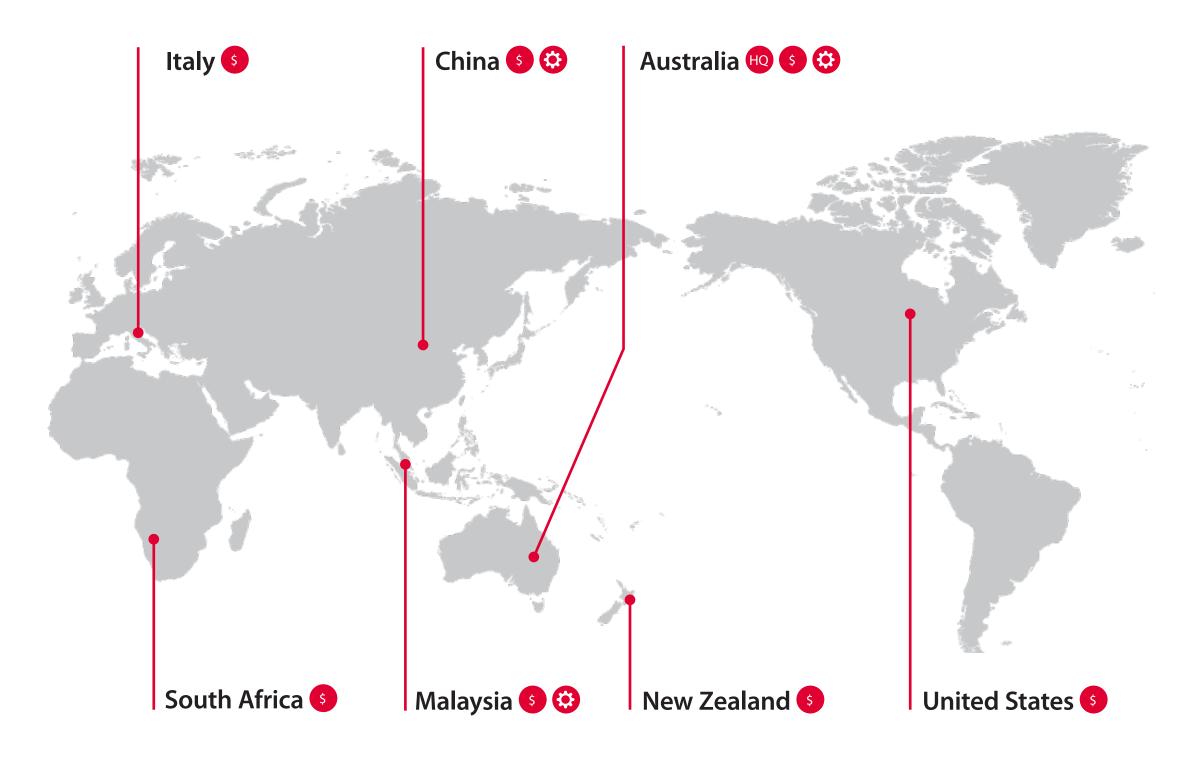
- RYCO is a global leader specialising in the design, manufacture and distribution of a comprehensive range of high pressure hydraulic hoses and fittings.
- RYCO's product portfolio includes an extensive range of spiral and wire braid hydraulic hoses, fittings, couplings and adaptors.
- With over 75 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**



Sales & Marketing Headquarters





#### **Product Offering**

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











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

# RYCO

### 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.

Mining Capability Profile

RYCO.com.au

# RESEARCH & DEVELOPMENT RYCO's commitment to innovation and business delivers customers high quality





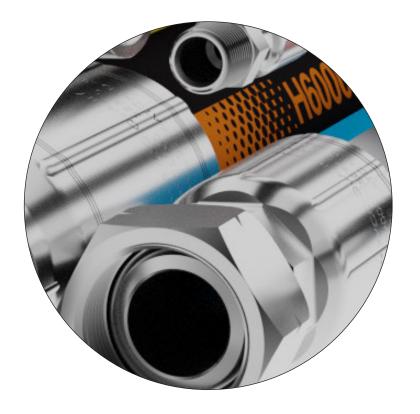
#### **Compact Spiral**

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<sup>TM</sup>**

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

JSEAL<sup>™</sup> 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

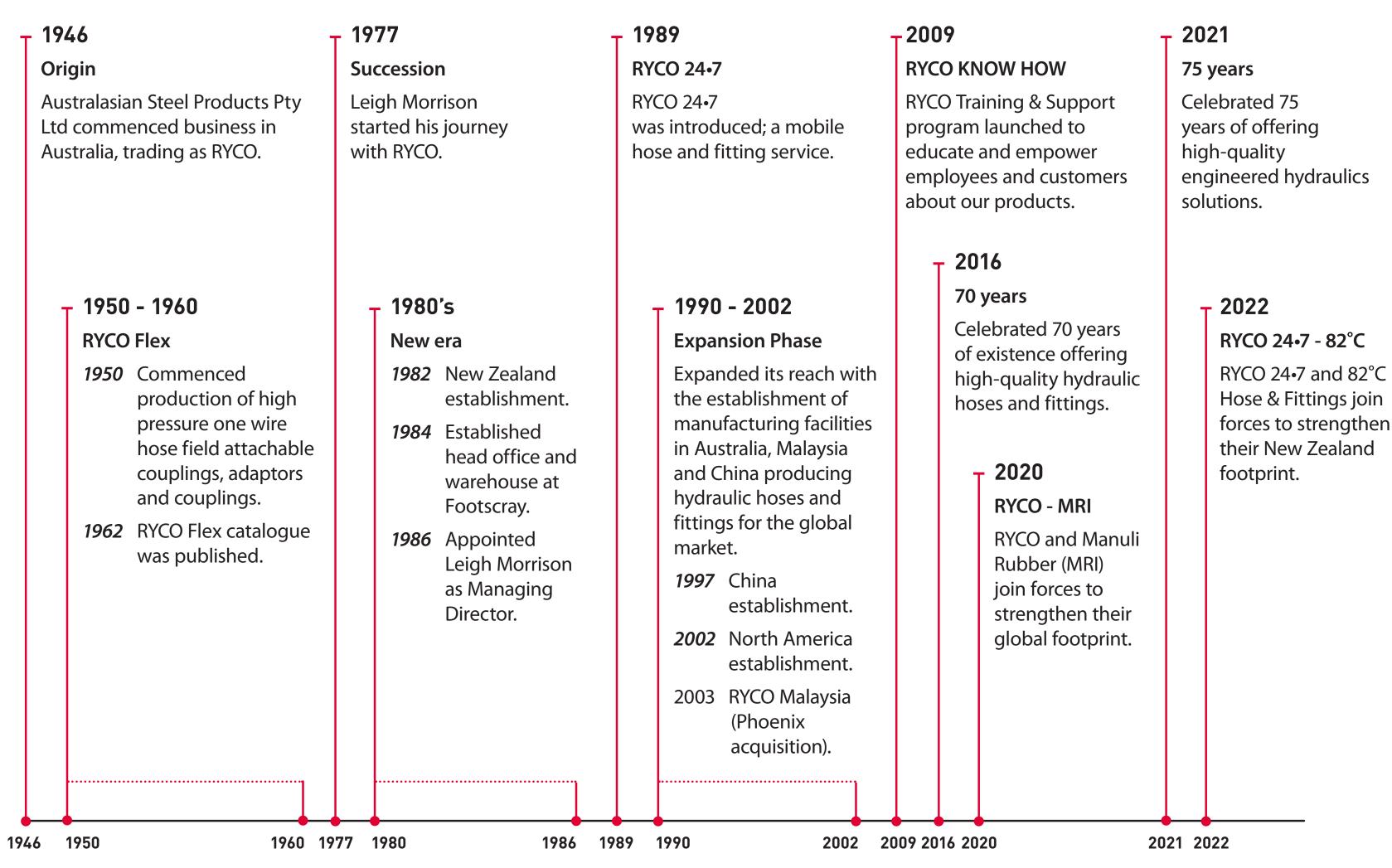
RYCO's coupling manufacturing utilises cold forming, which is a high speed forging process where coiled wire at room temperature is precisely sheared to length, and then moved through a succession of tool and die cavities to displace the working metal.

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.



#### **Key Milestones**



# RYCO

## GLOBAL PRESENCE

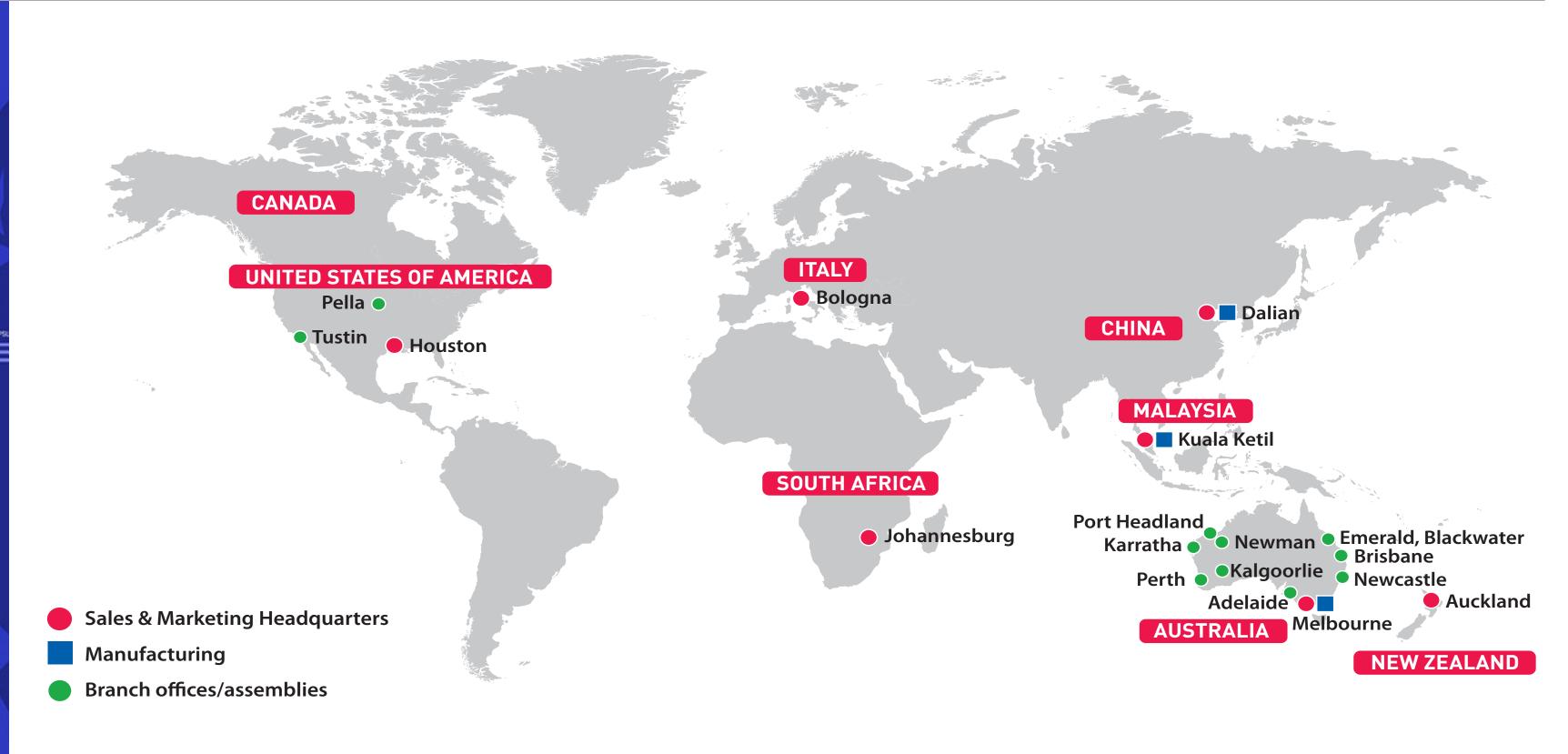
For more than 75 years, RYCO has developed a global footprint with extensive manufacturing capabilities, strategically placed warehouses and robust distribution and support network ensuring seamless delivery of its quality products.

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.















# RYCO

# 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.



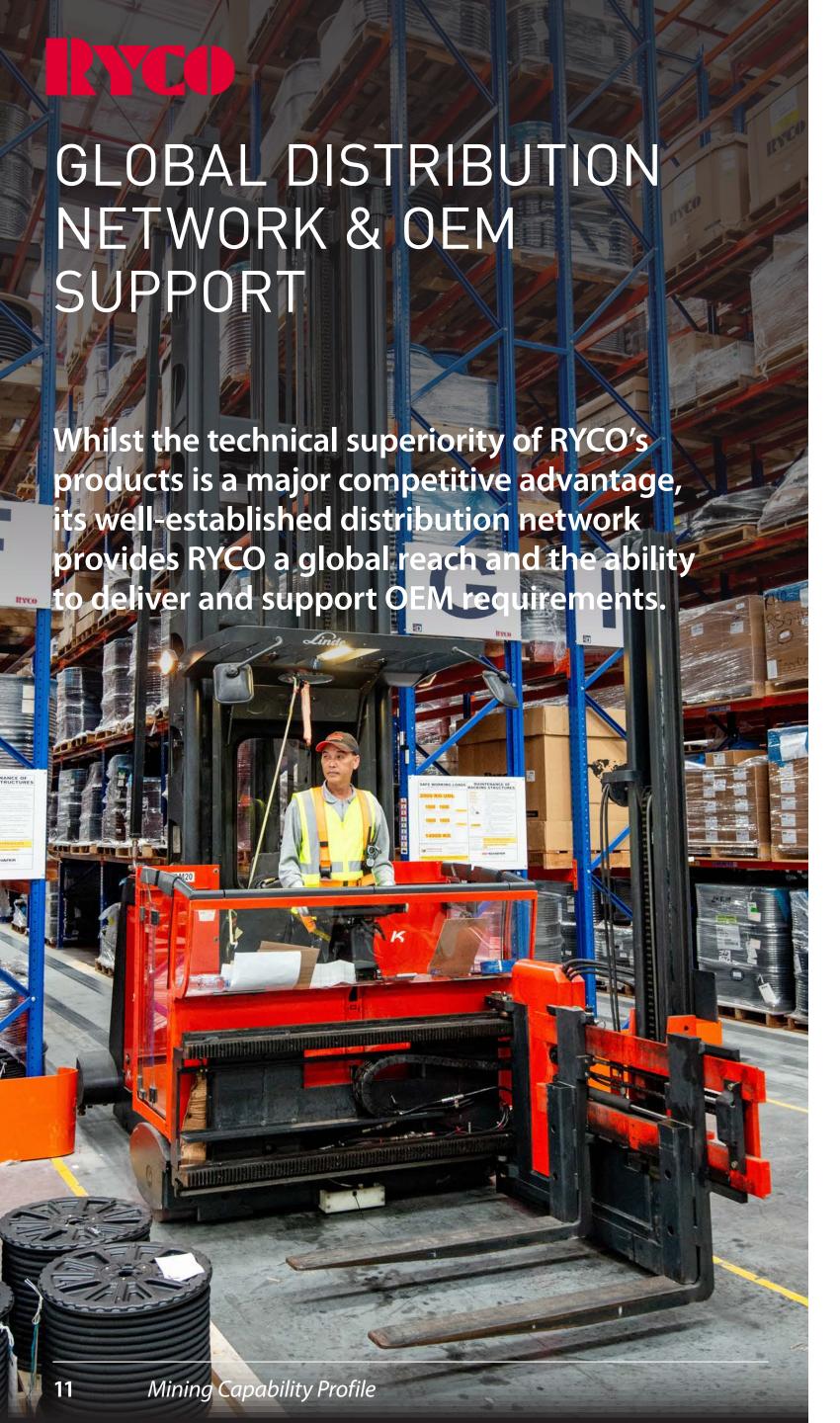








	Australia	USA	Mataysia	China
Headquarters	Global headquarters based in Melbourne	5,200m² based in Houston, Texas	Located in Kuala Ketil	Located in Dalian
Production Facilities	7,800m <sup>2</sup> brand new, state-of-the-art warehouse	1,800m² in Pella, Lowa	15,400m² in Kuala Ketil	14,400m² in Dalian
Staff	195 employees across all locations	98 employees across all locations	269 employees	273 employees across Shanghai and Dalian
Manufacturing	Hose Assemblies in own facility	Hose Assemblies (Pella and Houston)	Hydraulic Hoses	Couplings (Dalian) Hose Assemblies (Shanghai)
Distribution	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



#### **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









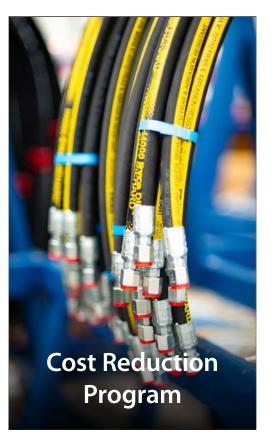
RYCO is an industry expert that has actively partnered with OEM's to engineer and develop specialist technology used for hydraulic applications.

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.









### SECTOR CAPABILITIES

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



#### **Mining**

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- 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<sup>TM</sup> coupling are ideal for underground mining equipment.



#### Oil & Gas

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

RYCO's JSEAL<sup>TM</sup> 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 portto-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.

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#### **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.

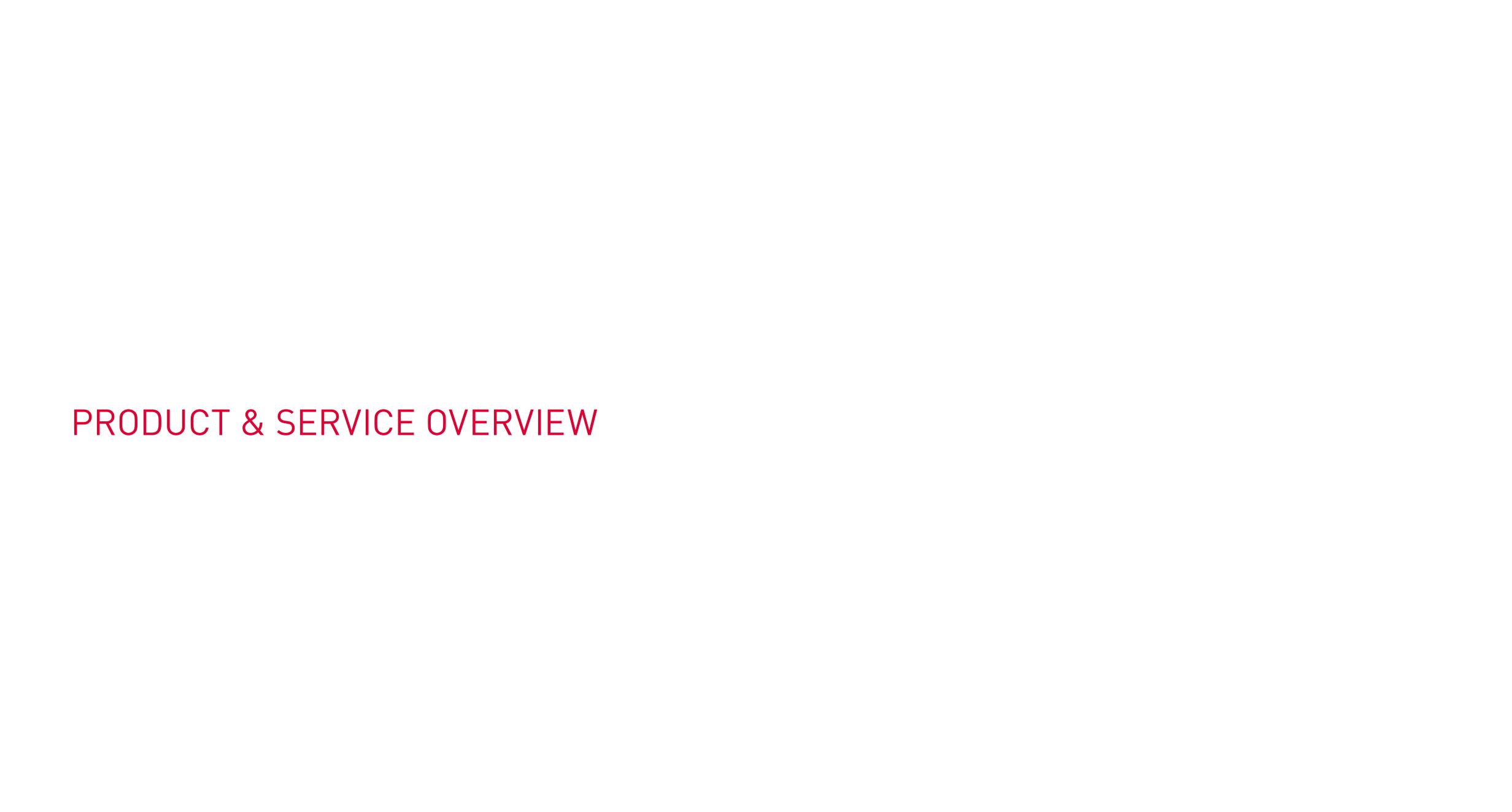


#### Extreme

- 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.





### 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.

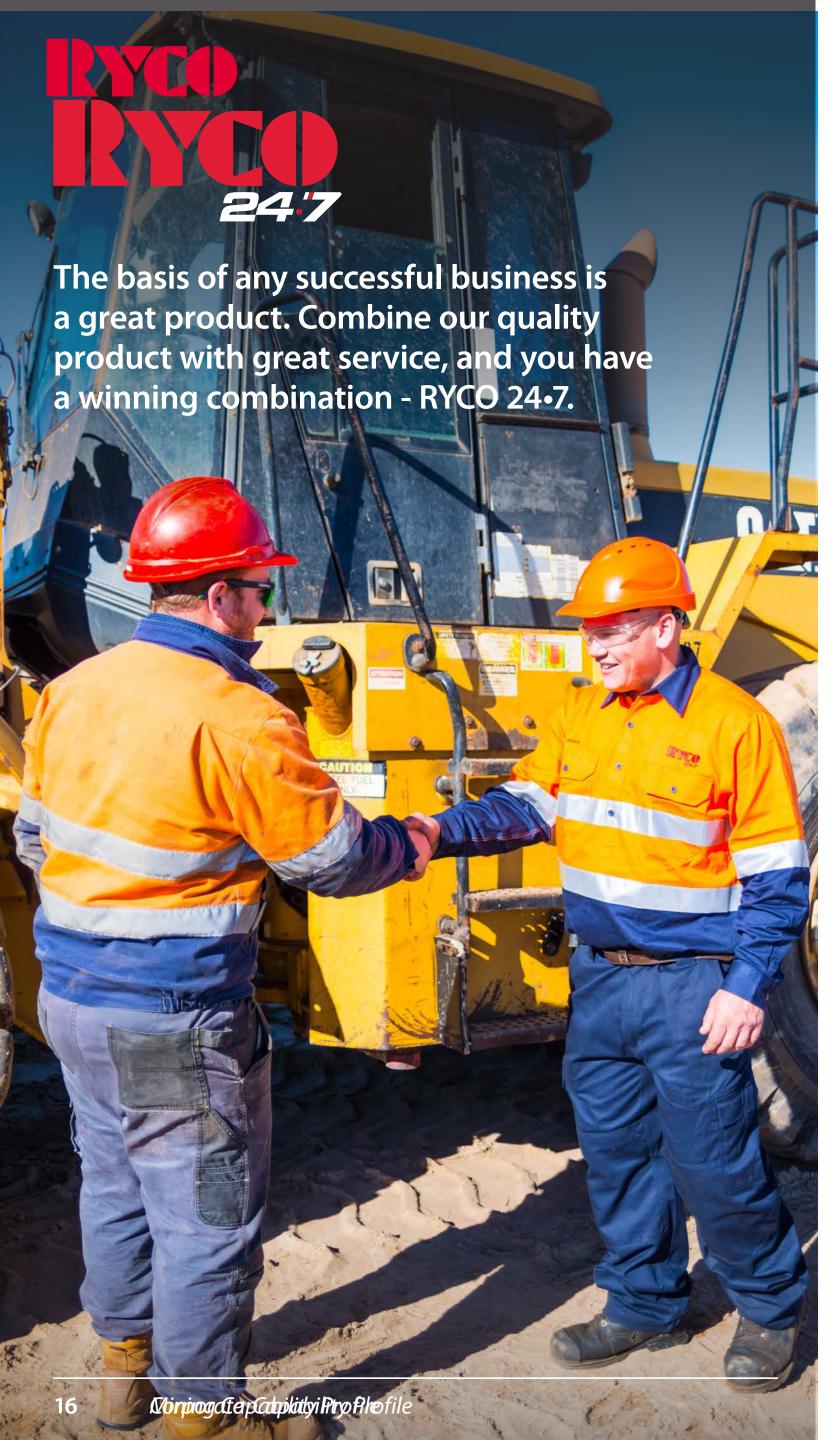
RYCO's accessories are designed with speed and efficiency in mind so that your hydraulic hose assembly provides exceptional productivity and reliability. Our Accessories range includes Quick Release Couplings, Valves, Airline Couplings, R1620 Easy Test, Mounting Clamps & Accessories.



#### **Workshop Equipment**

RYCO has your workshop needs covered with a full range of cutoff 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.



#### 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 onsite container workshops globally.

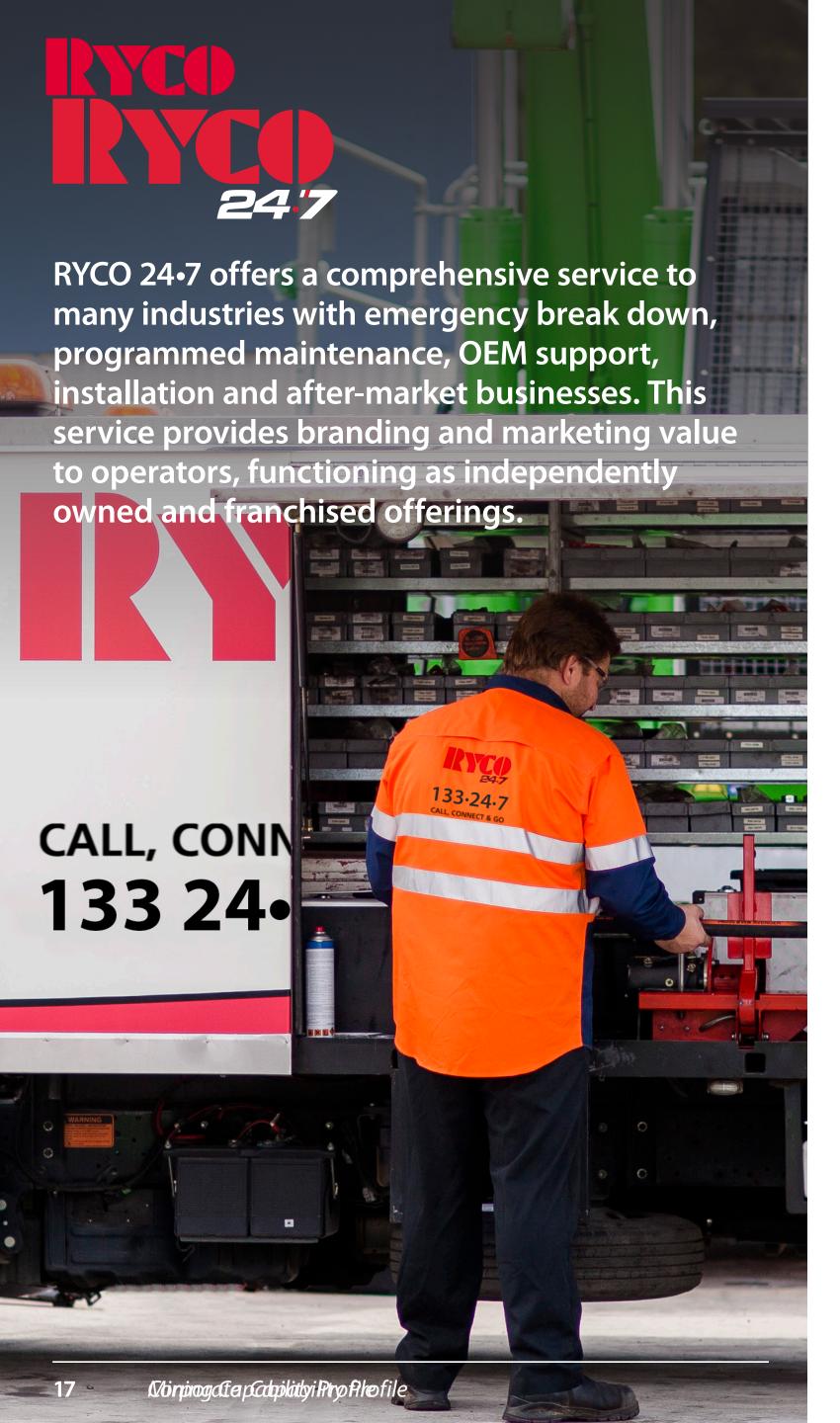
#### **Key Features:**

- 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 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.

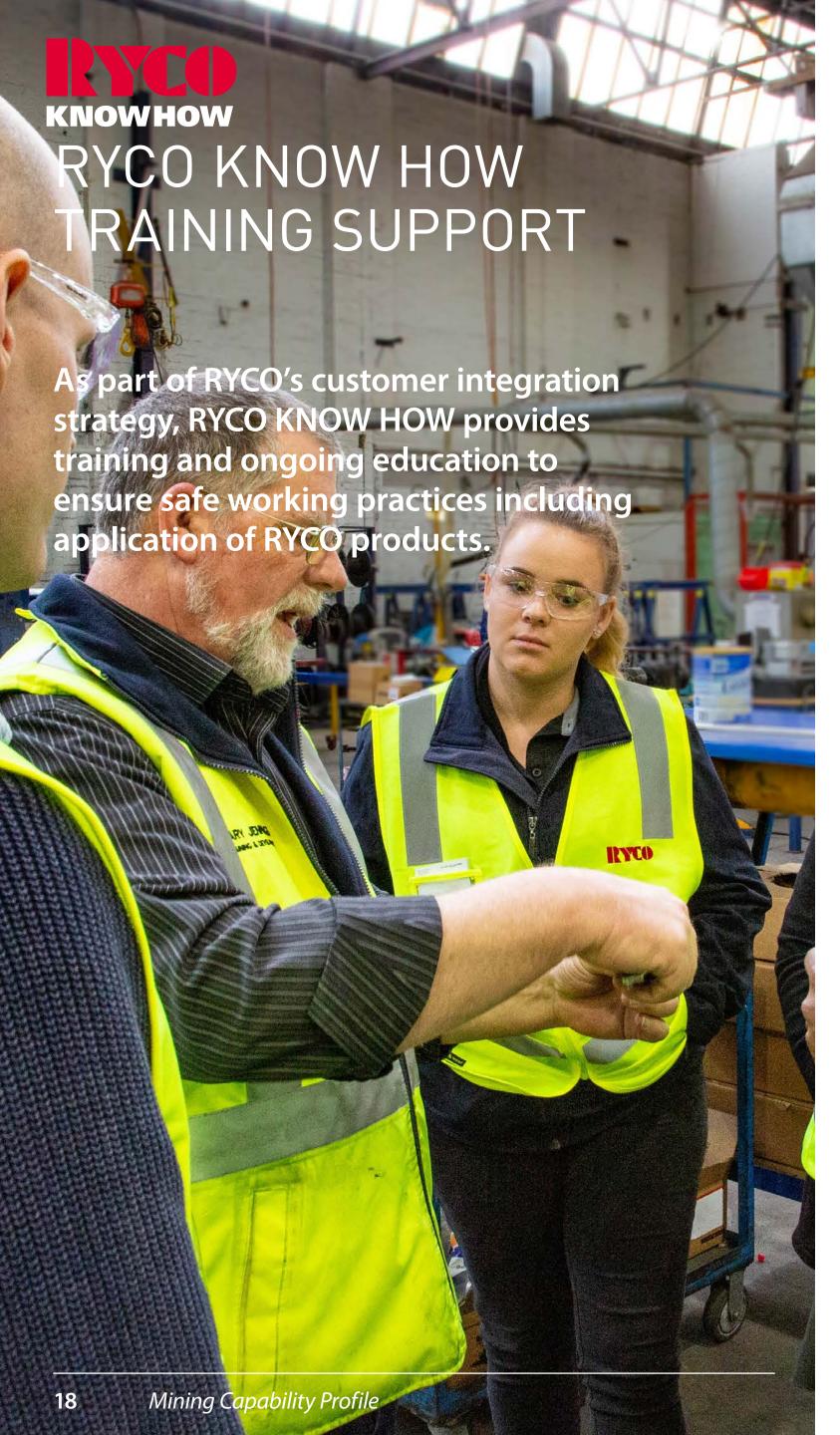
New hose assemblies are accurately cut to length, cleaned using the RYCO Hose Clean System, crimped and checked before every installation. Inventory on board includes a large selection of braided and spiral hoses, fittings including standard and metric thread forms, Adaptors, Quick Release Couplings,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









#### 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.

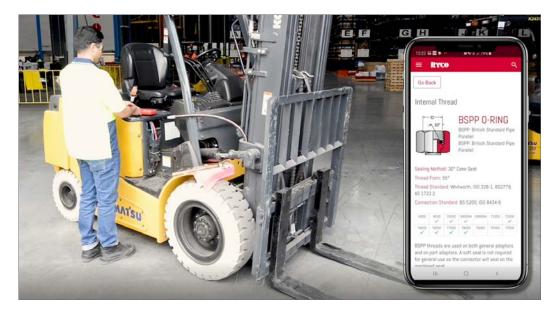
Mode of delivery include on-site face-to-face training sessions (conducted at RYCO and customer/OEM facilities) and online interactive self-paced modules.











#### RYCO 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!







#### **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.

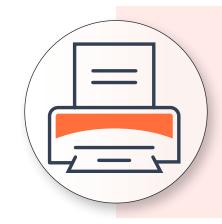
It is a web based application designed to enable hose identification asset tracking, audit and inspection, preventative maintenance and includes a reporting system tool.

- 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.



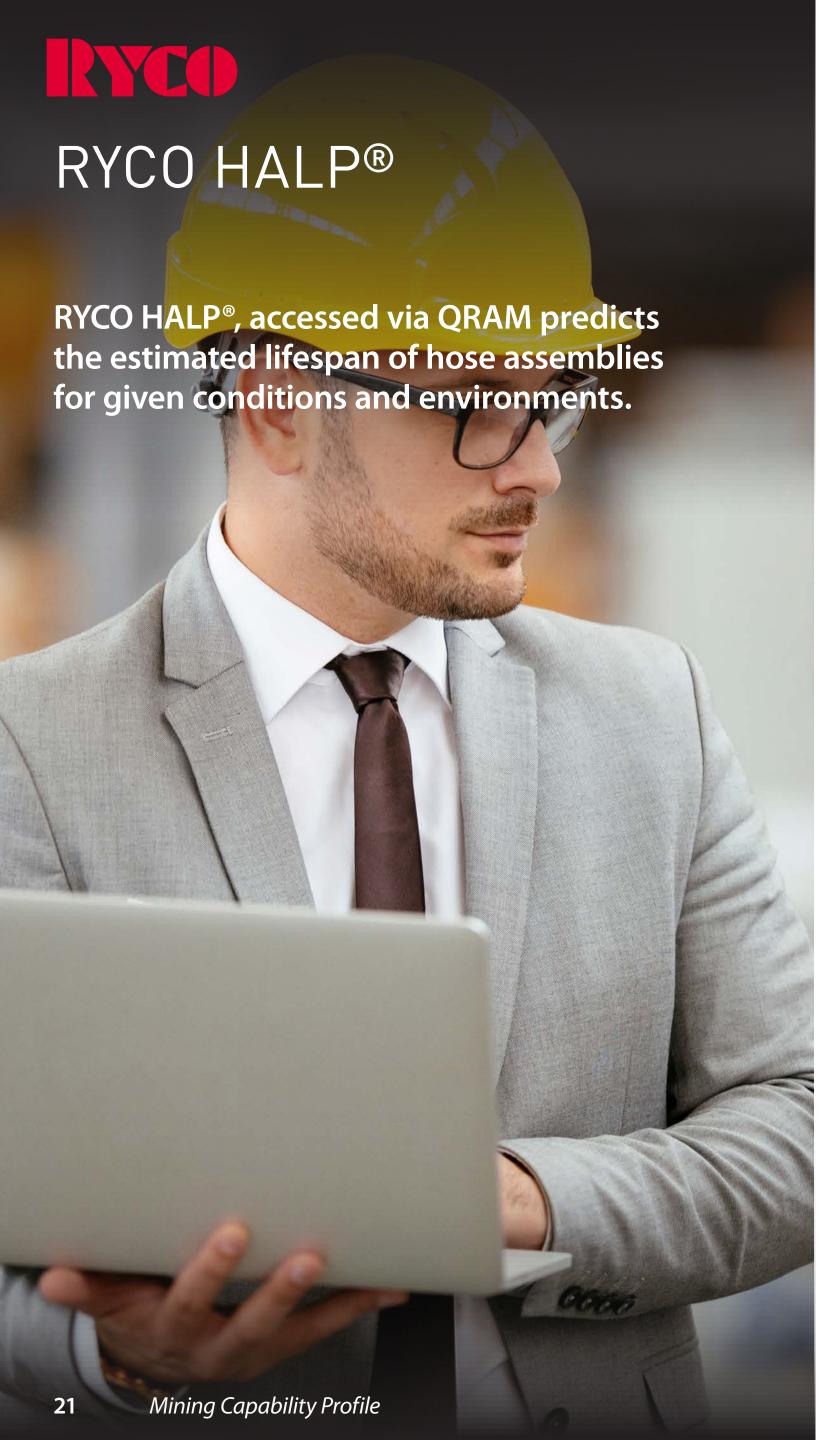
#### 3. Asset Replacement

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



#### 4. Reporting

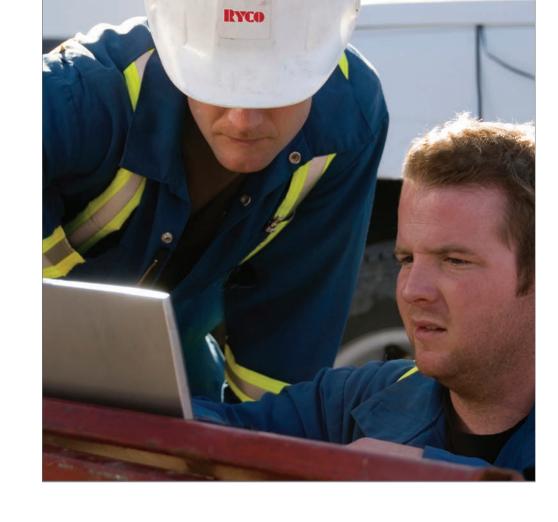
The app highlights unexpected failures, hot-spots and usages.



## RYCO HALP®

#### HOSE ASSEMBLY LIFESPAN PREDICTOR





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

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.

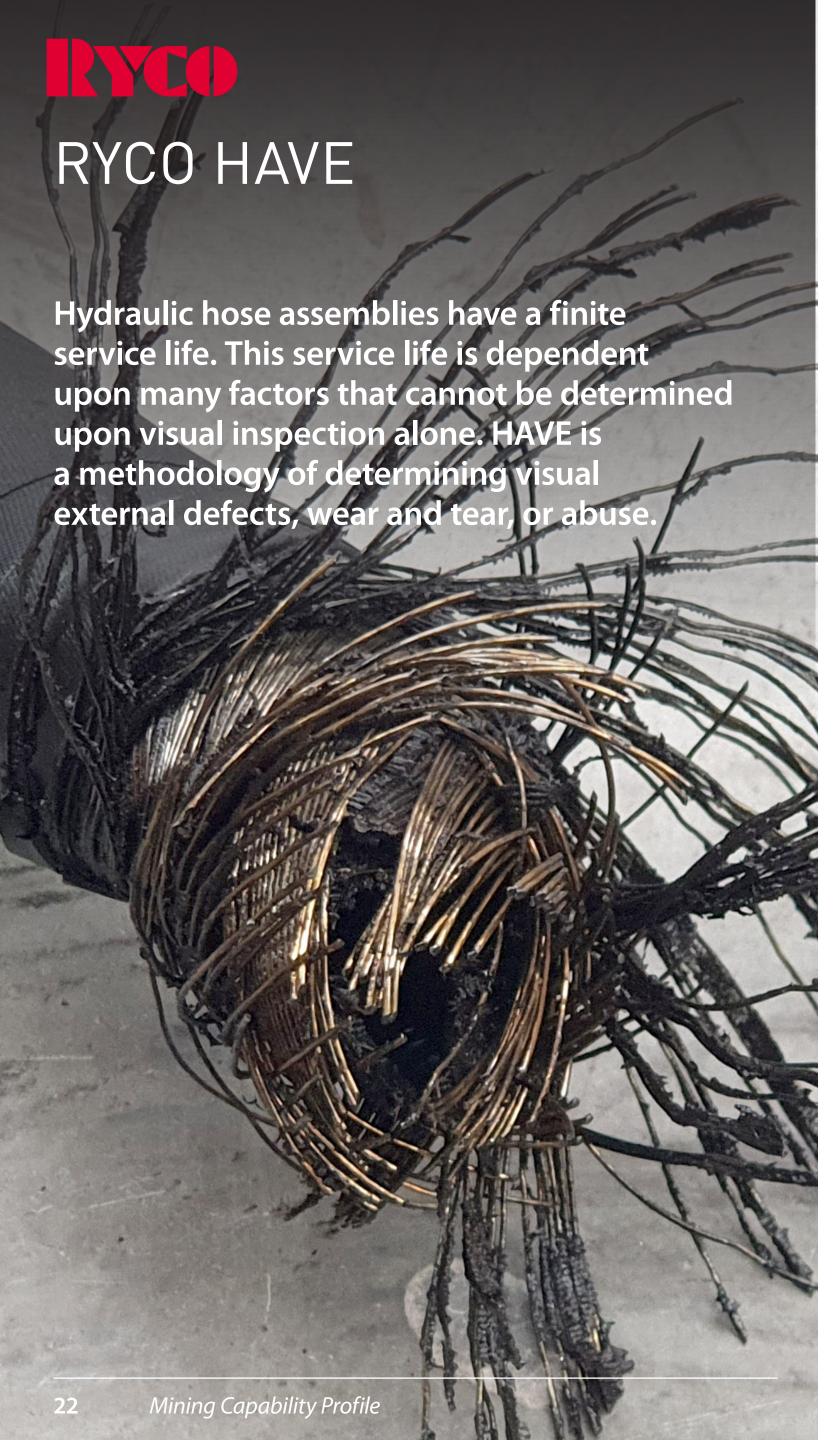
1. ASSET MANAGEMENT

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.



# HOSE ASSEMBLY VISUAL EVALUATION

## **IT'S AS EASY AS 1-2-3!**







1

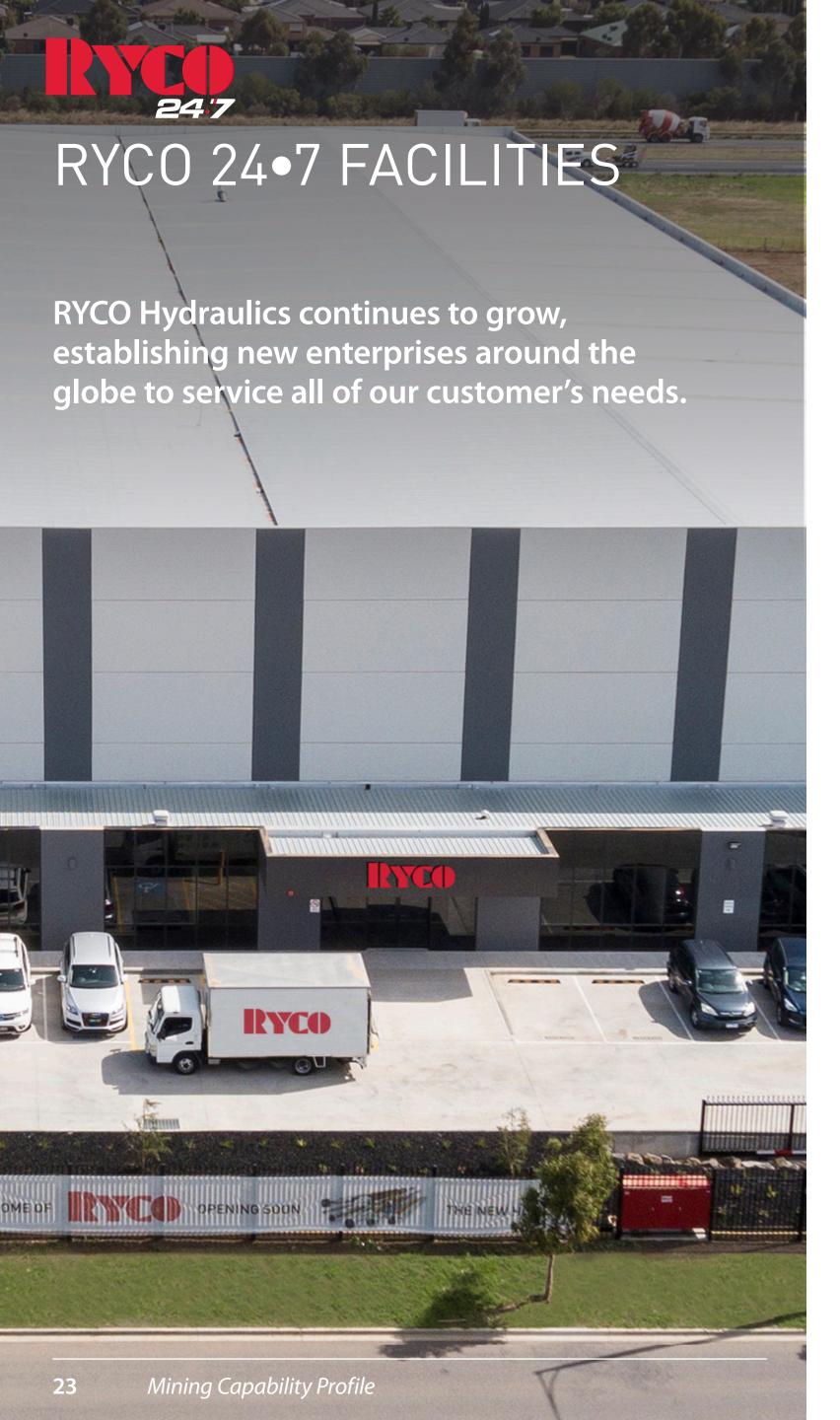
Free from obvious external defects and/or abnormalities.

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

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.

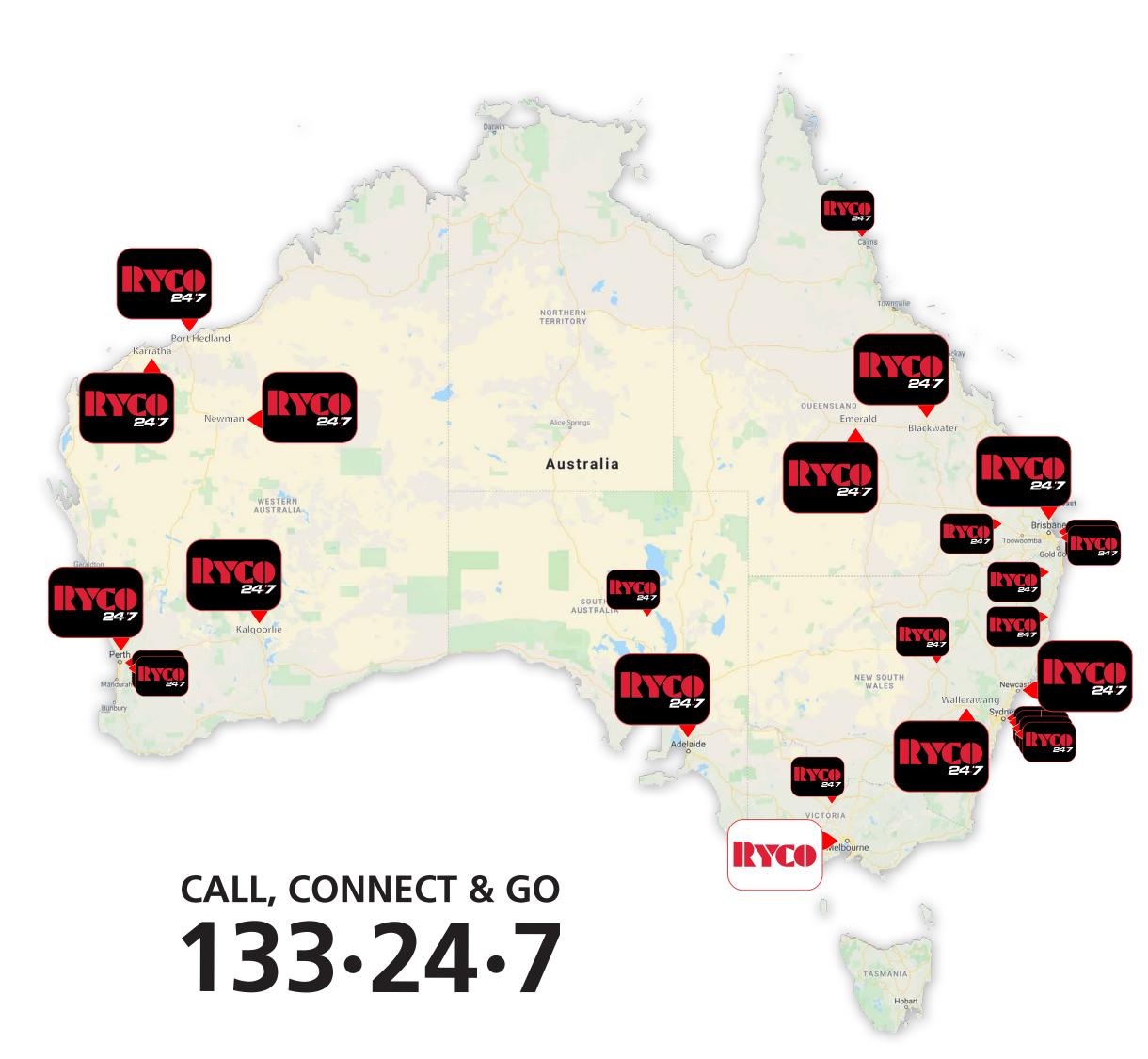
RYCO now have an asset management system – QRAM which can assist you to complete the HAVE methodology. From just a touch of a button, QRAM gives operators and hose assemblers instant access to essential hose assembly information. Ensuring a reduction in high hidden costs and productivity loses.



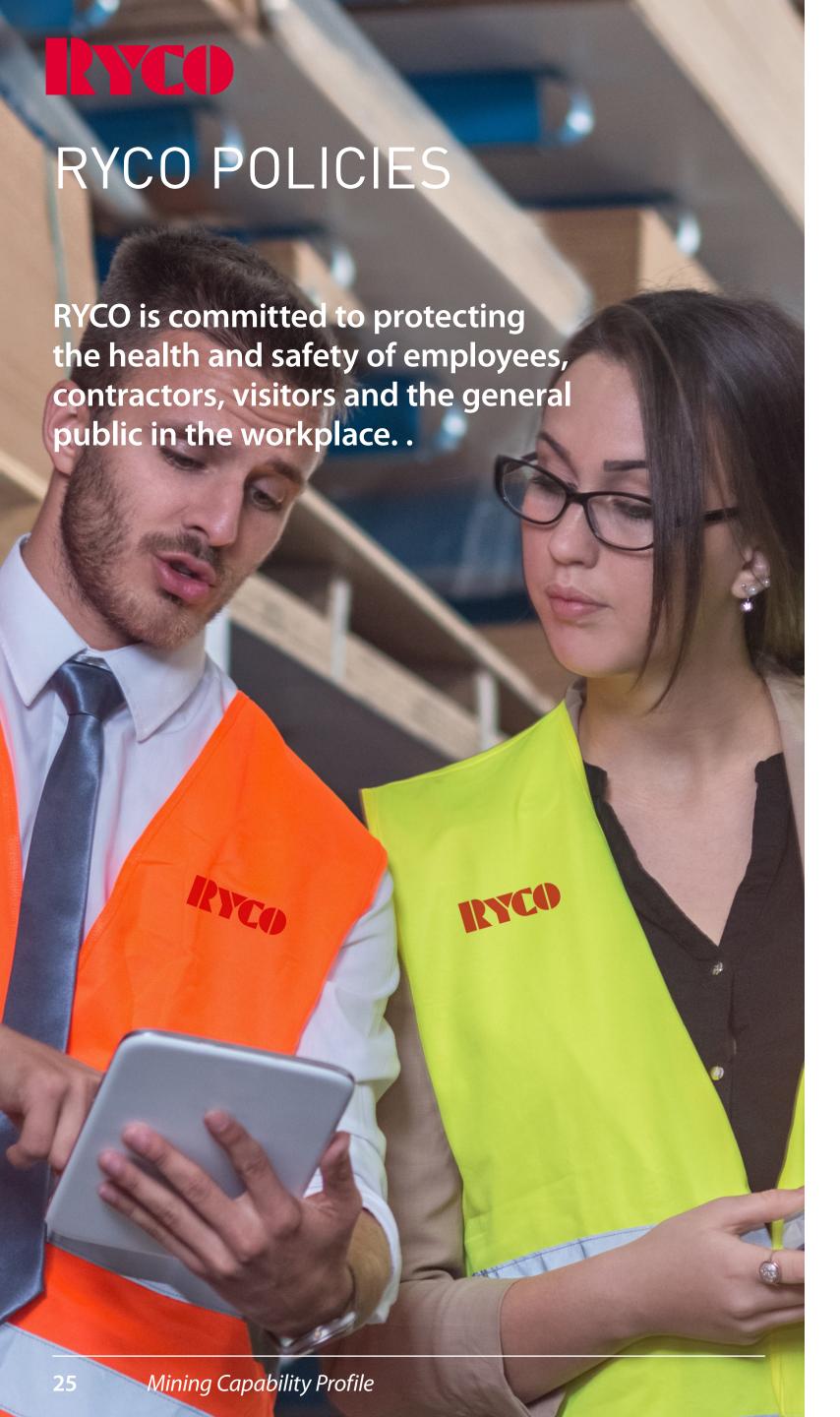
#### **Local Australian Branches**

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



# RYCO QUALITY



#### 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.

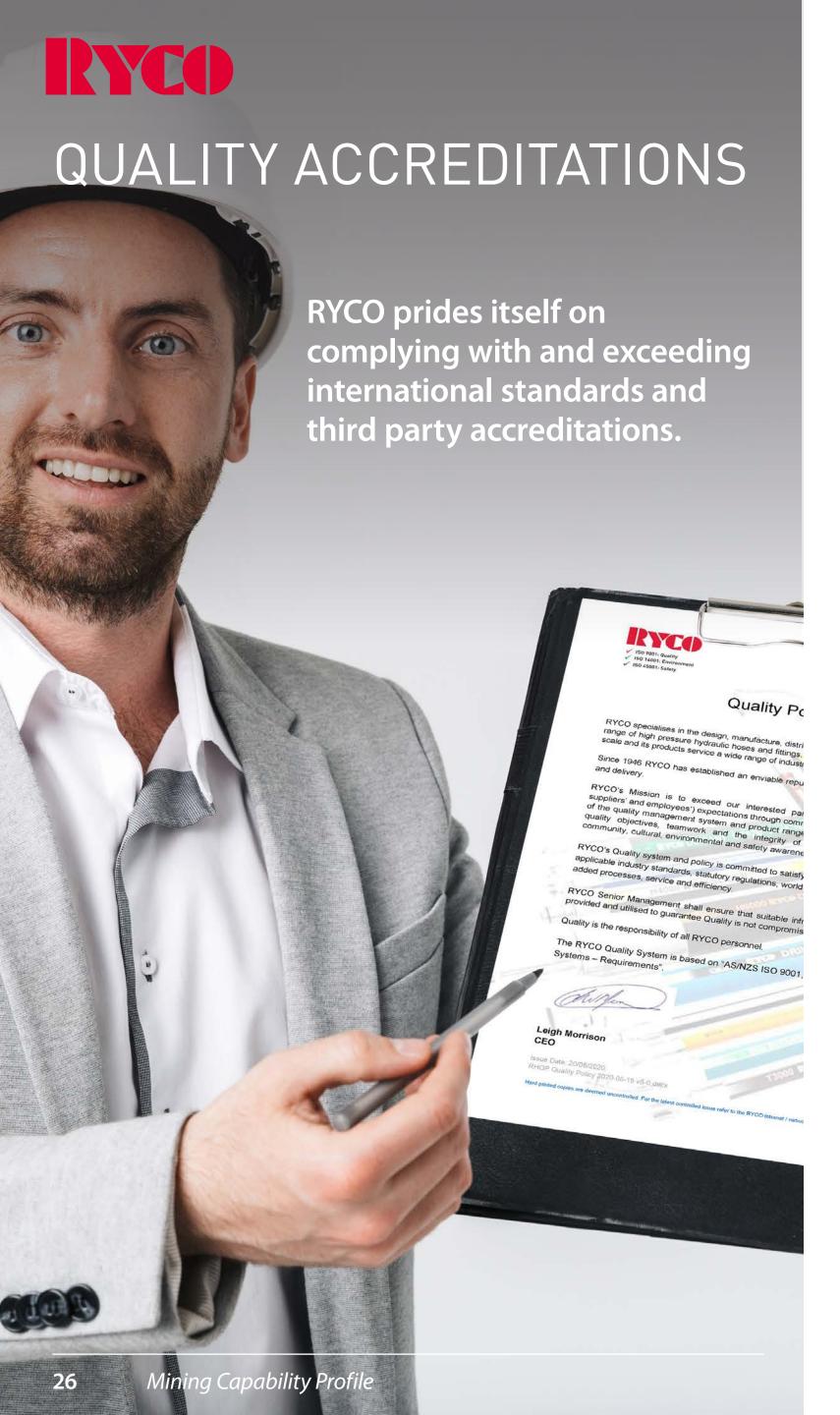
RYCO is committed to compliance with applicable environmental legislation, regulations and any other requirements to which RYCO subscribes.

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 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:

	, , , , , , , , , , , , , , , , , , , ,
AGA TO	Australian Gas Association
	American Bureau of Shipping
WESTIZES	Bureau Veritas
CCS	China Classification Society
ClassNK	CLASSNK – Nippon Kaiji Kyokai
DNV·GL	DNL – GL













P-GOST Quality & Safety Declaration of Conformity



**US Coast Guard** 





#### **RYCO LOCATIONS**

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RYCO GLOBAL HEAD OFFICE - MELBOURNE AUSTRALIA

99 Calarco Drive, Derrimut, VIC 3026

BRISBANE

97 Northlink Place, Northgate, QLD 4013

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

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+1 866 821 7926

PERTH 47 Tacoma Circuit, Canning Vale, WA 6155

**NEWCASTLE** 

14 Ironbark Close, Warabrook, NSW 2304

NEW ZEALAND

**AUCKLAND** 

4 Autumn Place, Penrose, Auckland 1061

USA & CANADA

**USA HEAD OFFICE - HOUSTON TEXAS** 

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CALIFORNIA

1150 Valencia Avenue, Tustin, California 92780

,

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Pella, Iowa 50219

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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

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**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 QUEENSLAND SOUTH AUSTRALIA** Brisbane Bellingen Cowell Blackwater North Adelaide Batemans Bay **Charter Towers** Richmond Casino Roxby Downs Dubbo Dalby Whyalla Goulburn Emerald Fraser Coast Ingleburn Mascot Northside Newcastle Penrith

VICTORIAWESTERN AUSTRALIANORTHERN TERRITORYBendigoKalgoorlieDarwin

Carrum Downs Karratha

Melbourne Newman

Port Hedland

Wangara

NEW ZEALAND 0800+111+24+7

**SOUTH ISLAND NORTH ISLAND** Pukekohe Auckland Christchurch Gisborne Taupo Dunedin Waikato Invercargill Hawkes Bay Hamilton Wellington Nelson Whakatane Temuka Masterton Whangarei Northwest Otorohanga Palmerston North

USA & CANADA +1 844•700•0247

**TEXAS** 

Wallerawang

Wetherill Park

Houston















