



REEL TECH

Pty Ltd
Toughest for the Roughest

Reel Safety with Safe-R-Reel™



10 FACTS

Of hose reel safety

Hose reels in the workplace

Helping you identify the risks and responsibilities

Providing REEL solutions

10 FACTS ABOUT HOSE REEL SAFETY

ARE YOU PROTECTING YOUR PEOPLE & EQUIPMENT?



HOSE REEL SAFETY

- Risk Assessment
- Reduce Trip Hazards
- Safer Rewind Speeds
- Safer Hose Deployment
- Safe Single Operator Productivity
- Reducing Pressure Risk & Hose Damage
- Minimise Fatigue & Prevent Strain Injuries

Our intention with this book is to help you **identify the risks** and **responsibilities** relating to the use of hose reels in the workplace, illustrate the **opportunities for improvement**, and assist in specifying the correct hose reels for the intended application. We can help you:

- **Identify risks** that people may not be aware of until it's too late
- Take responsibility for acting with **information** and **knowledge**
- Make **improvements in safety, productivity** and **cost reductions**

Everyday, industries convey fluid, air, waste or hydrocarbon through various hose sizes and lengths. **Many industries either do not use hose reels or may be using the wrong hose reel, increasing RISK, WORK TIME and COST.**

GET EXPERT HELP



Start by discussing your needs with experts in the field who can help correctly specify reels for your application.

The reels should partner the work process. Designing for efficiency and risk reduction improves safety and work flow, reduces injury, downtime and costs. Reel Tech can provide valuable guidance in your hose safety management, with special and unique products specifically designed to meet these needs. **TALK TO REEL TECH.**

REEL TECH CAN HELP

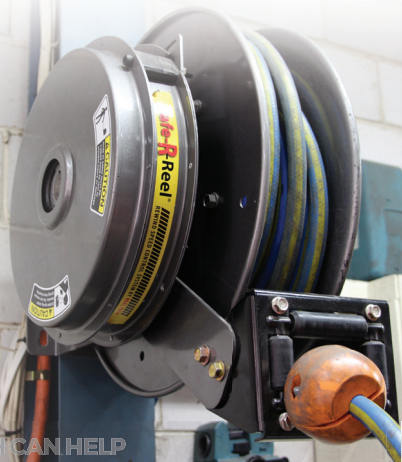
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THE 10 FACTS are not only about risk but also about improved quality, productivity & bottom line.

Reel Tech is a leader in recognising and offering solutions to assist industry towards reaching codes of best practice. Reel Tech strives for continuous improvement, with a focus on providing hose solution systems that are ergonomic, efficient and safe for operators.

Our reels can be specified and custom made in a range of materials and finishes including standard painted steel, **hot dipped galvanised steel, full stainless steel, light-weight aluminium** or a combination of the above. Rewind options include manual, spring, air, electric or hydraulic including **new direct-drive motorised technology, improving safety for** industrial applications, such as:

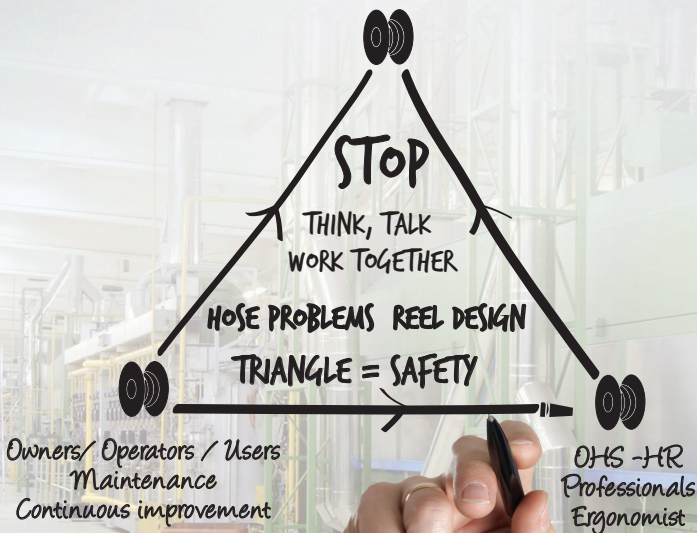
- Mining
- Fire and rescue
- Food processing
- Pharmaceutical
- Aviation and fuel delivery
- Cable storage applications
- Audio-visual
- Agricultural and pest control



REEL RISK TRIANGLE TALK IT

Whether you are an operator or looking for a hose storage solution, a risk assessment through risk identification is important for your plant hose and cable management. Stakeholders must communicate and work together in risk reduction. Talking is a great start.

Designers / Specifiers / Suppliers



REEL TECH CAN HELP

10 FACTS about hose reel safety

Understanding hose risk for safer workplaces
and safety compliance

1

Risk assessment

The best way to identify hose and cable risks is to consider the **REEL RISK TRIANGLE** as part of your work process, start talking about the **REEL RISK TRIANGLE** - refer to page 5.

2

Trip Hazards

Eliminating trip hazards can be achieved by conducting a workplace risk assessment. The use of properly specified reels for hose management can minimise or eliminate these hazards.

3

Safer rewind (Retrieval) speed

Reel Tech's **Safe-R-Reel™** system slows spring reel retraction, reducing speed "whip" hazards. For powered reels, Reel Tech's patented **Safe-R-Reel™** gearbox delivers safer rewind speeds, less damage and more control.

4

Difficult hose payout (Deployment)

The excessive force required to retrieve the hose from the reel may cause serious strain injuries to operators. Reel Tech's **Safe-R-Reel™** auto decutching technology **EZI-Deploy™** can reduce the occurrence of hose payout resistance injury.

5

Jammed hose during rewind (Retrieval) and payout (Deployment)

By specifying the correct reel type, hose roller guide and reel mounting position can help prevent jammed hose reels during operation. **EZI-Deploy™** and **FlatWinder™** technologies assist a jam-free hose deployment and retrieval, reducing strain injury, improving hose life and saving time.

10 FACTS about hose reel safety

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6

Operator fatigue

With many hose operations becoming **single-operator** tasks, your risk assessment should include the potential for operator fatigue and injury and how to prevent it, particularly in respect to reel ergonomics and design.

7

Unsuitable materials

It is critical to select materials for reel construction that are fit for purpose. The right materials allow you to meet hygiene standards and protect the reel from corrosion or premature failure.

8

Undefined hose bend radius

Incorrect sizing of the hose reel drum dimensions relative to the specified hose minimum bend radius, can lead to hose rupture, resulting in potential injuries and system failure during service. Ensure your hose specification suits the reel you intend to use.

9

Correct pressure & temperature for safe reel use

It is critical to understand how vital the correct fluid path is in respect to pressure, temperature along with understanding the dangers associated with liquid emissions from hose outlets.

10

Outdated work processes

In emergency responses, time can save lives. A **single-operator** wireless Remote Control rewind system **Reel-In-Control™** with automatic hose layering **FlatWinder™** can simplify and speed up hose storage times allowing the vehicle to be deployed elsewhere faster with minimal personnel.

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RISK ASSESSMENT IS CRUCIAL

Risk assessment and hose reels
Start talking the REEL RISK TRIANGLE
(refer to page 5)



Hose not properly stored and managed in a workplace can lead to serious injury. Many hose reel storage options are available for a variety of industries and applications. *Is your hose stored properly?*

— No hose reels or incorrectly utilised reels in a workplace can pose inherent risks which **can lead to serious loss and injury** if neglected.

— Inefficient work flow and increased risks can occur when **a hose reel is difficult to use or not suited to application.**

+ Reel Tech can assist you to correctly specify reels and develop risk assessment strategies to **mitigate risk.**

+ Reel Tech **offers hose reel solutions** that are easy to operate and fit for purpose, and can assist with comprehensive hose handling safety guidelines.

Ask about our safety hose handling info-sheets

2

TRIP HAZARDS

Tripping hazards in industries result in thousands of injuries every year. These accidents carry a significant cost, downtime, and OHS compliance issues.

■ Trip hazards can occur when the hose reel

- Is not stored back in the reel when not in use
- Is lying entangled around and over objects
- The hose length is in excess to the job required
- Is not deployed flat to the ground. Foot level gaps between hose and ground is referred by Reel Tech as a “trip gap”
- Hose colour does not contrast with operating environment

+ Reel Tech can help

- Provide detailed safety guidelines & info-sheet considerations for operators
- Properly specified reels can reduce the possibility of accidents by maintaining an organized and productive workplace
- **Safe-R-Reel™ speed control systems can be fitted to spring powered reels to ensure a seamless and controlled rewind speed, reducing the possibility of injury by eliminating trip hazards and preventing hose damage and risks.**

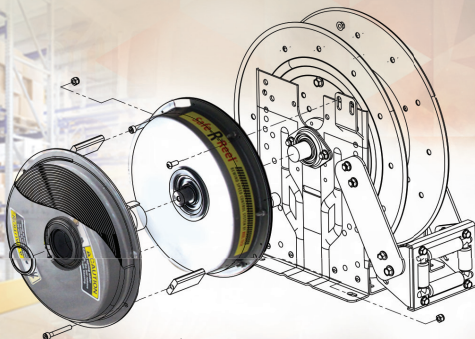
REEL TECH CAN HELP

3

SAFER REWIND (RETRIEVAL) SPEED

Various government departments & industries such as firefighting now mandate a maximum rewind speed for hose reels. More recently, speeds of 0.7 metres (2.3 feet) per second are being specified by various authorities.

Safe-R-Reel™ speed control systems help achieve safer rewind speeds.



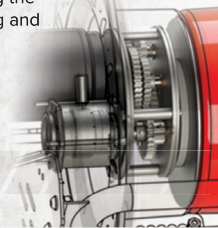
Excessive rewind speeds in motorised reels, whether spring or electric rewind, can cause hose to **rapidly move. Rapid movement of hose and fittings can strike employees** and equipment.

+ Rewind speed can be significantly reduced by **30-50%** by using Reel Tech's **Safe-R-Reel™ brake cartridge system**. This speed control system is easy and inexpensive to fit into many or existing spring rewind reels and protects the operator and equipment.

Accidental loss of hose control during rewind i.e. **loss of hose grip** can sometimes occur.

If rewind speed is dependent on this control, control loss can cause damage to other equipment and personnel, resulting in **costly maintenance, downtime and potential injury**.

+ Speed can be controlled via **Reel Tech's patented Safe-R-Reel™ gearbox/brake cartridge system**. This system is available for all spring, electric, pneumatic and hydraulic rewind reels including the **FireDog™** firefighting and **PitBull™** direct drive mining and industrial ranges.





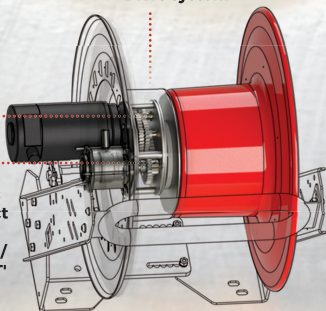
DIFFICULT HOSE PAYOUT (DEPLOYMENT)

Reel Tech's new reel technologies such as **EZI-Deploy™** and **Safe-R-Reel™** promotes easy and safer hose payout, reducing injury strain.

EZI-Deploy™
clutch system

Safe-R-Reel™
Speed control
Drive system

Automatic
Safer direct
system
**'NO CHAIN/
SPROCKET'**



+ Reel Tech's **ergonomically designed hose reels** utilise **EZI-Deploy™** clutch systems, offering smooth reel operation, and prevent excessive force that can cause strain injury & prematurely damage equipment.

+ Reel Tech's patented 'No chain/sprocket' **Safe-R-Reel™** gearbox with integrated clutch system, **EZI-Deploy™** dramatically **reduces hose payout force** minimising strain injuries by auto-declutching.

➤ **Hose can be heavy, payout resistance adds to this load**

- Handling too much hose at one time can exceed safe manageable weight
- Difficult pull force on payout adds to the risk of strain injuries to operators
- Hose should not be taut during use. Hose becomes taut from being insufficiently deployed; a fully stretched hose is considerably harder to manage.
- Poor handling of hose can result in expensive hose damage and burst injury

+ **Patented Safe-R-Reel™ speed control and EZI-Deploy™ clutch gearbox systems**

- Promotes easy and safer hose storage, reducing unstored hose and user risks
- Offers smooth reel operation with no excessive force that can prematurely damage equipment
- Dramatically reduces hose payout force, minimizing strain injuries and eliminates chain & sprocket pinch points.

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JAMMED HOSE DURING REWIND AND PAYOUT

Prevent jammed reels during rewind and payout process

Reel Tech reels are designed for efficient layering and hose retrieval



Jammed reels often lead to operators **exerting excessive force** by pulling and tugging the hose which is strenuous and can cause strain injury as well as damage to equipment and slow critical work processes.

+ Correctly fitted roller guides and roller position relevant to the installation **creates a seamless reeling operation** and efficient workplace. Reel Tech reels can be combined to offer optimal roller configuration based on its installation.

Jammed reels can **slow down work process and endanger employees** and their ability to save lives.

+ Reel Tech's **EZI-Deploy™ auto de-clutching systems** on all Fire Dog™ Reels reduce effort required for payout, even on the largest and longest hose lengths. The **FlatWinder™** system allows for an **efficient, jam-free layering of hose** during payout and rewind for neat and efficient storage.

6

OPERATOR FATIGUE

Reels must be designed with safety and ergonomics in mind

Flat Winder™ and Wireless Remote Control helps reduce operator fatigue.



Cost pressures of today's industry require many operational duties undertaken with fewer personnel, many becoming single-person roles. **Operators are subjected to increasingly tedious work** processes, increasing the **risk of fatigue**.

+ Reel Tech's wireless remote control **Reel-in-control™** can cut response times and increase safety with single-operator technology, making hose handling tasks easier for operators, increasing safety and productivity.

Some operations require longer hose lengths to perform tasks. This adds to the difficulty with hose handling which **lowers productivity and exposes employees to strenuous tasks**.

+ Reel Tech's **FlatWinder™** hose layering system negates the need for operator intervention during rewind which not only assists in minimising fatigue associated with 'cross-pulling' of hose for inconsistent layering.

Ask about our safety hose handling info-sheets

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UNSUITABLE MATERIALS

Hose Reels are required to withstand tough environments

Reel Tech can provide reels with the right materials that are suitable for the application & environment.



Corrosion and damage in reels is common due to environmental factors. **Permanent deterioration and contamination** of products can result. Reels manufactured from lesser materials such as plastic if damaged, can lead to non-detectable components breaking off and contaminating product.

+ Reel Tech reels are available in **detectable** materials such as **hot dipped galvanised and stainless** to meet **hygienic requirements** and provide **superior corrosion protection** in harsh environments. Fluid paths and swivels must also be suited to your application to avoid injury or catastrophe failure in service.

Hose reels not built with suitable materials can **break down unexpectedly** which can stop the work flow and cause work hazards.

+ Reel Tech can help you select the right hose reel for the task in hand which includes correct storage capacity, rewind mechanism, material construction, pressure rating and much more, **ensuring the equipment is fit for purpose.**

8

UNDEFINED 'HOSE BEND RADIUS'

Knowledge is vital to reel specification

Reel Tech reels can be selected for trouble free operation and helps maintain structural integrity of the hose it's storing.



Not adhering to the specified bend radius can cause the **conveyed fluid to leak due to premature failure and breakage of the hose.** Hose stress through 'stretch' distortion can lead to costly or dangerous results.

By providing to us detailed information on your specified hose, Reel Tech can offer customised reel solutions to ensure that the **structural integrity of your desired hose is maintained and meets hose specifications.**

High risk applications such as firefighting and most high pressure applications rely on the integrity of the equipment. Any failure in the system including the hose or reel can have **catastrophic consequences.**

It is critical in such applications that the equipment is of superior quality and is matched to the hose specified. Reel Tech reels are considered the **toughest in the industry** with more than two decades of reel supply in harshest conditions as proof to our service reliability.

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9

PRESSURE & TEMPERATURE

Critical for safe reel use

Reel Tech can help provide the correct reel with the right specifications.



— The use of high pressure liquids on reels that are **not rated or designed** for the specific application must be avoided as **serious injuries** or fatality can occur, resulting in costly maintenance and downtime.

— The impact of incorrectly specified reels not meeting the operating pressure or temperature requirements of the application can result in **catastrophic system failure.**

+ By providing us your specific pressure and temperature requirements, Reel Tech can offer customised reel solutions that can **safely meet pressure rating requirements, temperature and environmental requirements.**

+ Reel Tech not only provides **expert advice** but can provide key information on all its products to allow engineers to **determine the suitability** of a reel for the intended application.

10

OUTDATED WORK PROCESSES

Free up personnel and improve safety

Upgrade your reels with Wireless Remote Control Reel-In-Control™ and FlatWinder™ technology



Conventional and outdated reel designs often required several employees to operate a reel properly making tasks **tedious and unproductive.**

+ Reel Tech is a proud supporter of the Fire & Rescue industry providing the latest in reel technology to cut response times and increase safety. We offer single-operator hose reel solutions that include **Reel-In-Control™** wireless remote control and **FlatWinder™** automatic hose layering technology. **Suitable for all industries wishing to reduce repetitive operation risks.**

Emergency units must often respond to multiple incidents during one call out. Their ability to move and respond quickly can make a difference in **saving lives and property.** Awkward and difficult hose management complicates this. Improving their work process and minimising response time is paramount.

+ Reel Tech takes time to understand your requirements and offers customised solutions for efficient work process. With a wide variety of powered reels and optional accessories available including wireless remote control including **Reel-In-Control™**, **FlatWinder™**, **EZI-Deploy™**, we can tailor make a reel for you.

REEL TECH CAN HELP

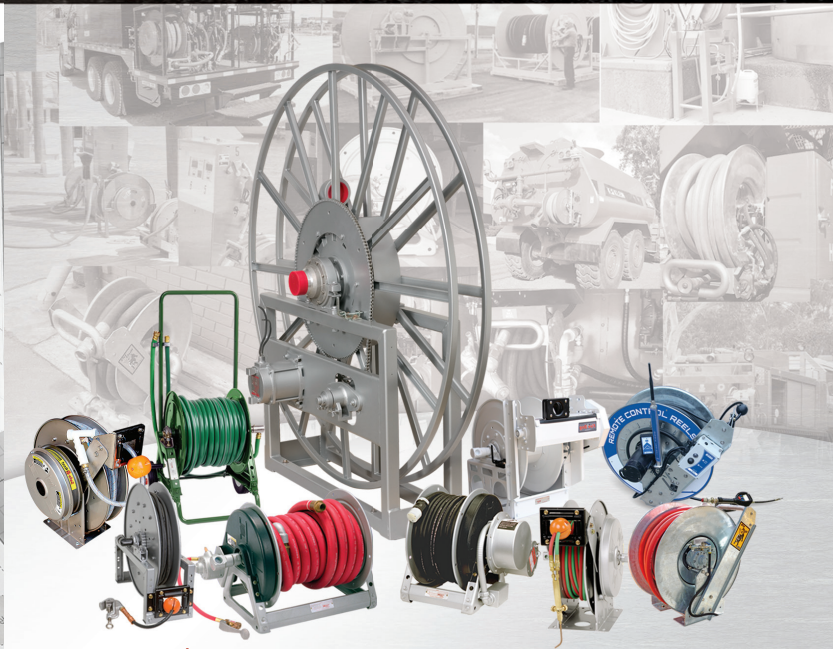
Hose Reel risk analysis

Reel Tech has a solution to meet your requirements



Custom Reels

to suit every industry and application



We design custom reels

- To meet your exact requirements
- To handle hose and cable in limited space and special environments
- To efficiently and safely convey chemicals, fuels, gas, liquids and more
- For a variety of power drive systems
- To guarantee a perfect fit for your application
- To store hose safely in special applications
- To reduce hose related injuries and hazards.

REEL TECH CAN HELP



REEL TECH

Toughest for the Roughest

Reel Safety with Safe-R-Reel™

Reel Tech has been serving industries for over 25 years, and continues to deliver the toughest hose and cable reels for the roughest environments. **We have a full range of industry and technical specifications for all your custom needs.**

Patented performance you can trust.



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