

# Quadro Horizontal Lifeline



Part #:  
**30800**

**Do not throw away  
these instructions!**

Read and understand  
these instructions before  
using equipment!

# Quadro Horizontal Lifeline

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## Introduction

Thank you for purchasing a **Checkmate Quadro Horizontal Lifeline**. This manual must be read and understood in its entirety, and used as part of an employee training program as required by OSHA or any applicable state agency.

This and any other included instructions must be made available to the user of the equipment. The user must understand how to safely and effectively use the **Quadro Horizontal Lifeline**, and all fall safety equipment used in combination with the **Quadro Horizontal Lifeline**.

User Information	
Date of First Use:	_____
Serial #:	_____
Trainer:	_____
User:	_____

## Applicable Safety Standards

When used according to instruction specifications, this product meets or exceeds all applicable **OSHA 1926 Subpart M** and **OSHA 1910** standards for fall protection. Additionally, all applicable components meet or exceed **ANSI Z359** standards for fall protection.

Applicable standards and regulations depend on the type of work being done, and also might include state-specific regulations. Consult regulatory agencies for more information on personal fall arrest systems and associated components.



### **CAUTION**

Understand the following definitions of those who work near or who may be exposed to fall hazards.

## Worker Classifications

### **QUALIFIED PERSON:**

A person with an accredited degree or certification, and with extensive experience or sufficient professional standing, who is considered proficient in planning and reviewing the conformity of fall protection and rescue systems.

### **COMPETENT PERSON:**

A highly trained and experienced person who is **ASSIGNED BY THE EMPLOYER** to be responsible for all elements of a fall safety program, including, but not limited to, its regulation, management, and application. A person who is proficient in identifying existing and predictable fall hazards, and who has the authority to stop work in order to eliminate hazards.

### **AUTHORIZED PERSON:**

A person who is assigned by their employer to work around or be subject to potential or existing fall hazards.

**It is the responsibility of a Qualified or Competent person to supervise the job site and ensure all applicable safety regulations are complied with.**

**▲ WARNING**

Use of equipment in unintended applications may result in serious injury or death.  
**Maximum 1 attachment per connection point.**

## Product Specific Applications



**PERSONAL FALL ARREST:**

The **Quadro Horizontal Lifeline** may be used to support a **MAXIMUM 4** personal fall arrest systems (PFAS) for use in Fall Arrest applications.

Structure must withstand loads applied in the directions permitted by the system of at least 5,000 lbs. Maximum free fall is 6', or up to 12' if used in combination with equipment explicitly certified for such use.

*Applicable D-ring: Dorsal.*



**RESTRAINT:**

The **Quadro Horizontal Lifeline** may be used in Restraint applications by a **MAXIMUM 4** users. Restraint systems prevent workers from reaching the leading edge of a fall hazard. Always account for fully deployed length of lanyard/SRL.

Structure must withstand loads applied in the directions permitted by the system of at least 1,000 lbs. No free fall is permitted.

Restraint systems may only be used on surfaces with slopes up to 4/12 (vertical/horizontal).

*Applicable D-rings: Dorsal, Chest, Side, Shoulder.*



**▲ WARNING**

**NEVER for simultaneous use in Fall Arrest and Restraint.**

**For all applications: worker weight capacity range (including all clothing, tools, and equipment) is 130-310 lbs.**

# Limitations

## FALL CLEARANCE:

There must be sufficient clearance below the anchorage connector to arrest a fall before the user strikes the ground or an obstruction. When calculating fall clearance, account for a MINIMUM 2' safety factor, deceleration distance, user height, length of lanyard/SRL, harness stretch, and all other applicable factors.

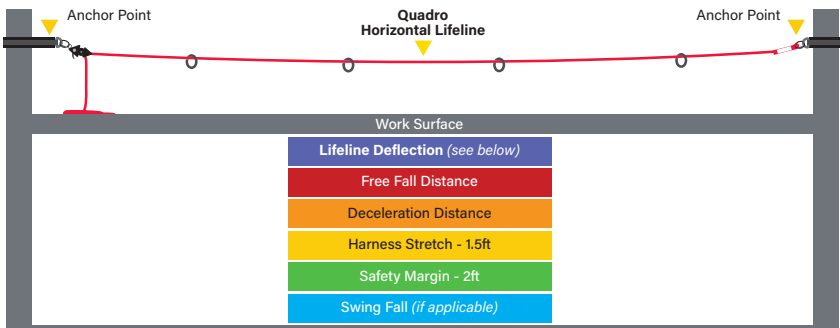
Diagram below is an example fall clearance calculation ONLY.

## SWING FALLS:

Prior to installation or use, make considerations for eliminating or minimizing all swing fall hazards. Swing falls occur when the anchor is not directly above the location where a fall occurs.

Always work as close to in line with the anchor point as possible. Swing falls significantly increase the likelihood of serious injury or death in the event of a fall.

**TOTAL FALL CLEARANCE = DEFLECTION + FREE FALL + DECELERATION + STRETCH + SAFETY MARGIN + SWING FALL**



## Deflection

WHAT'S THE LENGTH OF YOUR QUADRO HORIZONTAL LIFELINE SPAN?									
Span =	10ft	20ft	30ft	40ft	50ft	60ft	70ft	80ft	82ft
Deflection =	8.2ft	9.4ft	10.4ft	11.4ft	12.4ft	13.4ft	14.4ft	15.4ft	15.6ft

# Limitations

**COMPATIBILITY:**

When making connections with the **Quadro Horizontal Lifeline**, eliminate all possibility of roll-out. Roll-out occurs when interference between a hook and the attachment point causes the hook gate to unintentionally open and release.

All connections must be selected and deemed compatible with the **Quadro Horizontal Lifeline** by a Competent Person.

All connector gates must be self-closing and self-locking, and withstand minimum loads of 3,600 lbs.

**See the following for examples of compatible/incompatible connections:**

Connector closed and locked to D-ring: **OK**



Two connectors to same D-ring: **NO**



Incompatible or irregular application, which may increase risk of roll-out: **NO**



Two or more snap hooks or carabiners connected to each other: **NO**



Connector to integral lanyard: **NO**



Connector directly to webbing: **NO**



Connector directly to horizontal lifeline: **NO**



## Components and Specifications



Product Code	Description
30800	Quadro Horizontal Lifeline
Includes:	1 x Rope Vise Tensioner 1 x Drawstring Rope Bag 1 x 82ft / 25m Double Braided Rope 4 x Aluminum O-rings 2 x Steel Carabiners 2 x Cross Arm Straps
Materials:	Polyester, powder-coated aluminum, and galvanized steel

## Installation and Use

### Prior to use, plan your system:

1. Ensure all PFAS equipment is selected and deemed compatible by a Competent Person.
2. Eliminate or minimize all risk of swing fall.
3. Determine desired location for the **Quadro Horizontal Lifeline**; ensure location is free of debris, rot, cracking, and hazardous materials.
4. Installation, set-up, and use of the **Quadro Horizontal Lifeline** system must be done under the supervision of a Qualified Person.

### Installation:



1. Ensure rope is properly threaded in tensioner by adhering to steps 2, 3, and 4.

2. Unscrew knob on tensioner housing and open housing plate to reveal rope threading diagram as shown.

3. Thread rope such that the anchor (live) end and terminated (dead) end exit tensioner as indicated. Rope must sit in the groove of the drum. Close tensioner plate and tighten knob until snug.



4. Install compatible anchorage connector at first horizontal lifeline span termination point. Then, connect anchor (live) end of the **Quadro Horizontal Lifeline** to anchorage connector with a carabiner. Repeat at second horizontal lifeline span termination point by connecting the **Quadro Horizontal Lifeline** tensioner to second compatible anchorage connector.





**5. Pull initial rope lack through tensioner by hand.** This step is only to remove excess rope slack, not to achieve proper tension.

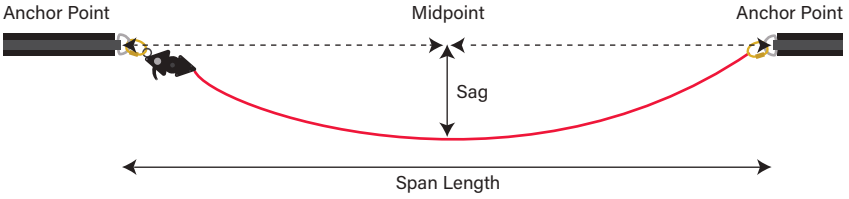
**6. Compress and hold tensioner handle and rotate handle until correct tension is reached.** Apply force to handle in turning direction only, as shown by arrow on handle.



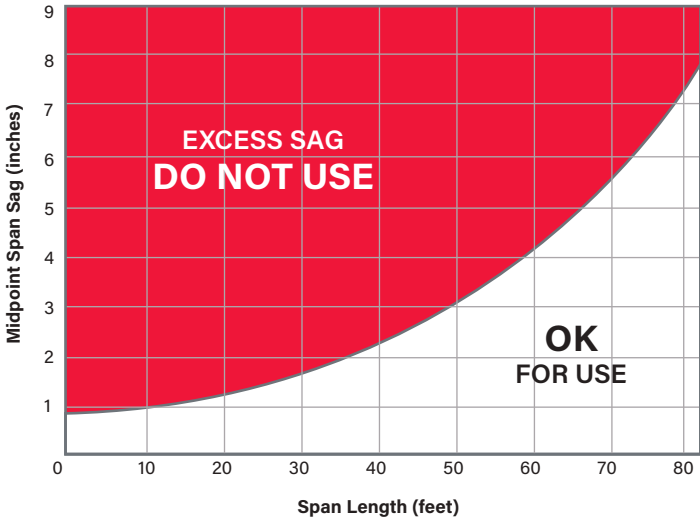
**7. To confirm proper tension, locate midpoint of horizontal lifeline span. At this point, rope sag must match data specified in graph and table on page 10.**

Never exceed specified sag. Sag less than specified is acceptable, but be sure to never over-tension rope. Always use sag method to ensure system is set correctly. Rope will slip to prevent over-tensioning, however it is not necessary to tension to this point. Never extend handle in any way to increase leverage.

## Installation and Use



**Quadro Horizontal Lifeline Tension Guide**



Span Length	Required Sag at Midpoint
10'	1.0"
20'	1.3"
30'	1.7"
40'	2.3"
50'	3.1"
60'	4.1"
70'	5.5"
80'	7.7"

## Maintenance, Cleaning, and Storage

If the **Quadro Horizontal Lifeline** fails inspection in any way, immediately remove it from service, and contact Checkmate to inquire about its return or repair.

Cleaning after use is important for maintaining the safety and longevity of the **Quadro Horizontal Lifeline**. Remove all dirt, corrosives, and contaminants from **Quadro Horizontal Lifeline** before and after each use. If a **Quadro Horizontal Lifeline** cannot be cleaned with plain water, use mild soap and water, then rinse and wipe dry. NEVER clean the **Quadro Horizontal Lifeline** with corrosive substances.

When not in use, store equipment where it will not be affected by heat, light, excessive moisture, chemicals, or other degrading elements.

## Inspection

Prior to EACH use, inspect the **Quadro Horizontal Lifeline** for deficiencies, including, but not limited to, corrosion, deformation, pits, burrs, rough surfaces, sharp edges, cracking, rust, paint buildup, excessive heating, alteration, broken stitching, fraying, and missing or illegible labels. IMMEDIATELY remove the **Quadro Horizontal Lifeline** from service if defects or damage are found, or if exposed to forces of fall arrest.

Ensure that applicable work area is free of all damage, including, but not limited to, debris, rot, rust, decay, cracking, and hazardous materials. Ensure that selected work area will support the application-specific minimum loads set forth in this instruction manual. Work area MUST be stable.

At least every 12 months, a Competent Person other than the user must inspect the **Quadro Horizontal Lifeline**. Competent Person inspections MUST be recorded in inspection log in instruction manual and on equipment inspection grid label. The Competent Person must sign their initials in the box corresponding to the month and year the inspection took place.

During inspection, consider all applications and hazards the **Quadro Horizontal Lifeline** may have been subjected to.

# Inspection Log

Date of First Use: \_\_\_\_\_.

Product lifetime is indefinite as long as it passes pre-use and Competent Person inspections. User must inspect prior to EACH use. Competent Person other than user must complete formal inspection at least every 12 months. Competent Person to inspect and initial.

This inspection log must be specific to one **Quadro Horizontal Lifeline**. Separate inspection logs must be used for each **Quadro Horizontal Lifeline**.

All inspection records must be made visible and available to all users at all times.

	J	F	M	A	M	J	K	A	S	O	N	D
YR												
YR												
YR												
YR												
YR												

**If equipment fails inspection  
IMMEDIATELY REMOVE FROM SERVICE**

## Labels

90780 (Rev. B)  
115x105



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DEVICE TYPE/LENGTH (m)
DATE OF MANUFACTURE
SERIAL No.
INSPECTION DATES
<b>Manufactured in the UK by Checkmate Lifting &amp; Safety Ltd.</b>
<b>Tel: +44(0)1795 580333</b> <b><a href="http://www.checkmateuk.com">www.checkmateuk.com</a></b>

## Safety Information

### **WARNING**

**Failure to understand and comply with safety regulations may result in serious injury or death. Regulations included herein are not all-inclusive, are for reference only, and are not intended to replace a Competent Person's judgment or knowledge of federal or state standards.**

Do not alter equipment. Do not misuse equipment.

Workplace conditions, including, but not limited to, flame, corrosive chemicals, electrical shock, sharp objects, machinery, abrasive substances, weather conditions, and uneven surfaces, must be assessed by a Competent Person before fall protection equipment is selected.

The analysis of the workplace must anticipate where workers will be performing their duties, the routes they will take to reach their work, and the potential and existing fall hazards they may be exposed to. Fall protection equipment must be chosen by a Competent Person. Selections must account for all potential hazardous workplace conditions. All fall protection equipment should be purchased new and in an unused condition.

Fall protection systems must be selected and installed under the supervision of a Competent Person, and used in a compliant manner. Fall protection systems must be designed in a manner compliant with all federal, state, and safety regulations. Forces applied to anchors must be calculated by a Competent Person.

Unless explicitly stated otherwise, the maximum allowable free fall distance for lanyards must not exceed 6'. No free fall allowed for non-LE SRLs. Class A SRLs must arrest falls within 24"; Class B SRLs must arrest falls within 54".

Harnesses and connectors selected must be compliant with manufacturer's instructions, and must be of compatible size and configuration. Snap hooks, carabiners, and other connectors must be selected and applied in a compatible fashion. All risk of disengagement must be eliminated. All snap hooks and carabiners must be self-locking and self-closing, and must never be connected to each other.

A pre-planned rescue procedure in the case of a fall is required. The rescue plan must be project-specific. The rescue plan must allow for employees to rescue themselves, or provide an alternative means for their prompt rescue. Store rescue equipment in an easily accessible and clearly marked area.

Training of Authorized Persons to correctly erect, disassemble, inspect, maintain, store, and use equipment must be provided by a Competent Person. Training must include the ability to recognize fall hazards, minimize the likelihood of fall hazards, and the correct use of personal fall arrest systems.

NEVER use fall protection equipment of any kind to hang, lift, support, or hoist tools or equipment, unless explicitly certified for such use.

Equipment subjected to forces of fall arrest must immediately be removed from use.

Age, fitness, and health conditions can seriously affect the worker should a fall occur. Consult a doctor if there is any reason to doubt a user's ability to withstand and safely absorb fall arrest forces or perform set-up of equipment. Pregnant women and minors must not use this equipment.

Physical harm may still occur even if fall safety equipment functions correctly. Sustained post-fall suspension may result in serious injury or death. Use trauma relief straps to reduce the effects of suspension trauma.



# Quadro Horizontal Lifeline



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