



Risk Assessment - Crossbows

GENERAL RISK ASSESSMENT - Crossbows

Location:			
Who is affected by the risks?	Instructors, Participants, spectators, members of the public		
How many are affected	Each risk is generally to a single person but there may be occasions where 1-5 may be at risk	Assessment Date	23/06/2025

Risk Rating Matrix

Consequence	Likelihood	Rare – 2	Unlikely – 3	Possible – 4	Likely – 5	Almost Certain - 6
	Minimal - 1 (hazard or near miss requiring reporting and follow up action)	Low (2)	Low (2)	Low (4)	Low (5)	Low (6)
	Minor - 2 (hazard or near miss requiring reporting and follow up action)	Low (4)	Low (6)	Low (8)	(10)	Medium (12)
	Moderate - 3 (hazard or near miss requiring reporting and follow up action)	Low (6)	Low (9)	Medium (12)	Medium (15)	High (18)
	Major - 4 (hazard or near miss requiring reporting and follow up action)	Low (8)	Medium (12)	Medium (16)	High (20)	Extreme (24)
	Severe - 5 (hazard or near miss requiring reporting and follow up action)	Medium (10)	Medium (15)	High (20)	Extreme (25)	Extreme (30)

Risk Rating
Low = 1-9
Medium = 10- 17
High = 18 - 23
Extreme = 24-30

Risk Assessment - Crossbows

Activity / Area of Assessment	Hazard(s)	Existing Control Measures	Risk Rating (severity X likelihood)			Additional Control Measures required to reduce the risk	Additional Actions assigned to and date to be completed	
			S	L	RR		Name	Date
Crossbow Range Shooting Line	Clothing jewellery or hair caught in the string	Apply best practice, ensure hair is tied back, loose or large jewellery is removed and baggy clothing is removed where possible	2	4	8	None		
Crossbow Range Shooting Line	Injured fingers from incorrect handling of the crossbow	Ensure all participants are instructed in the correct way to hold and shoot the crossbow remain vigilant at all times that their fingers are not protruding above the top edge of the tiller.	3	5	15	None		
Crossbow Range Shooting Line	Trip or Stumble over hazards or uneven ground	Ensure shooting range is free from trip hazards and is on even ground. If tent pegs are within the shooting area then cordon them off with rope/bunting or adjust the ropes to remove them from the area. Fill any holes prior to the event.	2	2	4	None		
Crossbow Range Shooting Line	Injury to feet from dropped bolts	Ensure participants are wearing suitable footwear. Minimise handling of bolts unless shooting. Always load the bolt for the participant. Make sure participants are aware of protocols regarding dropped bolts, especially those that fall over the shooting line.	2	5	10	None		
Crossbow Range Shooting Line	Shoulder or Back Injury from participant spanning the crossbow	Always span the crossbow for the participant	3	3	9	None		
Crossbow Range Shooting Line	Injury from a rebounding bolt	Ensure Targets are never closer than 10 metres from the shooting line and	3	2	6	None		

Risk Assessment - Crossbows

		that adequate overshoot is provided on all sides						
Crossbow Range Shooting Line	Injury from damaged or faulty equipment	All bows should be checked between each participant for signs of wear (frayed string, prod delamination, cracks, etc) All bolts should be checked between each participant (damaged whipping or loose fletchings, broken shaft or missing/loose point)	3	3	9	None		
Crossbow Range Shooting Line	Participant injured by a misfired arrow	Remain vigilant that the bolt is fully engaged with the lock and is secured by the clip	2	4	8	None		
Crossbow Range Shooting Line	Participant or bystander injured by misuse of equipment	Give clear concise instruction as to how to hold and shoot the bow. Anyone consistently ignoring instruction will be removed from the activity. Be on the lookout for participants showing signs of drug or alcohol intoxication (unaware of surroundings, swaying, confusion, slurred speech, unsteady on their feet, aggressive behaviour, dissociation from activity and instructions been given, poor hand to eye co-ordination, sleepy) Anyone displaying signs of intoxication will be removed from the activity. Be aware of everyone on the shooting line and those spectating, anyone that is not on the shooting line should not be holding a bow and/or arrow	4	2	8	None		
Crossbow Range	Participant shot by a bolt	Ensure all participants have been briefed on safe practice at the shooting line Ensure all participants adhere to safe shooting procedures at the line Ensure all participants are aware of the commands and what they mean. Ensure loaded bows are only ever pointed at the targets	5	2	10			

Risk Assessment - Crossbows

		Ensure participants are not distracted by other participants or spectators.						
Crossbow Range	Spectator or Passer by injured by bolt	Ensure there is adequate overshoot in all directions. (A 10m target requires 10m overshoot either side widening out as the target gets further away) Where possible have a wall or embankment or an area with no public access behind the archery Range (If not possible then 100m overshoot behind the targets. Double rope the boundary (shin height and Hip height) Display signs warning that crossbows are in use and not to enter. Remain vigilant especially where the range crosses paths or your view of the boundary is obscured. Rope off any gates or lines of ingress Stop all activity if anyone enters or attempts to enter the range. Ensure shooting lines do not point towards the sides of the range. Always use a backstop net suspended correctly to stop arrows	5	2	10			
Archery Range	Participant injured by a falling target	If participants are collecting their bolts ensure they are instructed in best practice. Instructors should collect in most circumstances. Remove them safely with one hand pressed against the target and the other as close to the surface of the target as possible.	2	3	6			
Archery Range	Participant injured by falling while carrying arrows	Ensure Participants walk at all times on the range Ensure bolts are always carried points downwards towards the ground and that the points are not enclosed in the hand	2	3	6			



Risk Assessment - Crossbows

Assessor:	John Steels	Signed:		Dated:	23/06/2025
Manager / Proprietor	John Steels	Signed:		Dated:	23/06/2025
Actions to be completed: None at this time					
Date Actions to be completed by:	N/A		Date Completed:	N/A	

Risk Assessment

The purpose of carrying out risk assessments is to identify those activities where action needs to be taken to improve existing control measures (or introduce new ones) in order to eliminate accidents which result in personal injury or ill health. There is no need to repeat earlier risk assessments such as manual handling, COSHH, etc., but they should be referred to in this general risk assessment.

*****GUIDANCE*****

To properly use a Risk Assessment Matrix follow these four steps:

- Step 1 – What is the Likelihood of the hazard causing harm working from left to right, determine if this will be rare or anything else through to almost certain.
- Step 2 – Consider the Consequence of the harm by working from bottom to top, to determine how severe the harm (injury/illness) posed by the hazard would be from minimal to something that could cause death or permanent disability.
- Step 3 - Follow the rows and columns to their meeting point to identify the level of risk.
- Step 4 - Use the outcome to determine the risk controls and identify any corrective and/or preventive actions. Depending on the outcome of the risk, action is determined according to the severity and depending on the level of risk, the matrix is to help determine the priority for action. For example, the hazards that have the potential to cause the greatest harm must be addressed first.

RISK FACTORS TO CONSIDER

More than one person should always be involved in a risk assessment as it is not always easy to come to the right conclusion when thinking about the likelihood and consequence. Input from others will help to bring a mixture of ideas and experiences to the process which will result in a more accurate assessment.

The people affected by the risk assessment should always be consulted during the process. It can be helpful to consider a number of factors when assessing the risk of a hazard. For example:

- The potential number of people that can be harmed
- The duration the risk can remain e.g. how long does it take to do the task that involves the hazard
- The same hazard can often cause a different level of injury/illness to different people (e.g. a person prone to allergies is more likely to develop an allergy to animal dander if they are required to handle animals).
- The risk of injury/illness can be different for similar substances e.g. solvent based paints are far more likely to cause illness than water based paints. • Not all hazards take the same time to cause injury/illness; the time duration and event frequency of hazards is often a determining factor when assessing risk potential (e.g. a carcinogen may take up to 30 years to show symptoms).
- People often have different perceptions of potential hazards and the damage the hazards can cause e.g. sitting at a desk working on a computer may not be seen as a hazard by a person operating a piece of machinery, but there a risk with this activity as well if not well managed.



Risk Assessment - Crossbows

RISK CONTROL

Once the risk assessment has been completed the next step is to identify and select the appropriate risk controls. Controls need to be developed using the Hierarchy of Controls which works through a number of options from the most to the least desirable.

- Elimination – can the hazard be eliminated altogether e.g. by eliminating the need to do the job?
- Substitution – if elimination is not possible can something less harmful be used instead e.g. – changing the activity, using different equipment or moving the activity to a less hazardous location
- Engineering – can the hazard be isolated from the person e.g. through safety equipment, harnesses or other “PPE”
- Administration - where the other preferable controls are not possible or not sufficient on their own are there other controls available such as training, employment of external contractors, specialist procedures or staff rotation

Controlling or eliminating hazards through a series of steps is the ultimate goal. In most cases leisure pursuits carry at least a small level of risk and will require a combination of the steps to adequately guard participants and staff from risk of injury, but never so much as to eliminate the purpose of participation. It is also important to ensure that participants are well informed of the risks posed to them by any given activity and that their explicit acknowledgement of those risks by way of a signed waiver document is completed.

Demonstrating and deploying strong risk controls through each of your activities will not only demonstrate to your customers that your approach to health & safety is taken seriously, it will also help protect you from disingenuous claims.

RISK REVIEW

The final step in the Risk Management process is risk review. Things can change during the activity e.g. Weather & damage to activity equipment.

Further, your organisation may see changes to their processes, introduce new activities, or other factors outside your control such as legislative changes that can impact the effectiveness of risk controls.

Ongoing monitoring and review ensures that the highlighted control measures remain suitable for the hazard(s) identified