

**Better bounce Direct V5.3**  
Land based, Constant airflow  
Equipment Operation Manual (User Manual)



**IMPORTANT – PLEASE READ BEFORE INFLATING YOUR PRODUCT**

**Please read this document in line with your Health & Safety email received from Betterbounce shortly after your inflatable purchase. If you have not received this email DO NOT OPERATE YOUR INFLATABLE and contact us immediately for assistance. This document is updated regularly so please check the current version is correct.**

**Please also ensure that this manual is read in conjunction with any item specific instruction manuals for items falling outside of the bouncing and sliding.**

## **Who is Betterbounce and what do we do?**

Hello, my name is Samantha, and I am the Manager of Betterbounce Direct. As one of Europe's top manufacturers of commercial-grade [bouncy castles](#), [Inflatables Games](#), and [Bouncy castle hire company startup equipment](#), we take great pride in providing our valued customers with premium quality products.

As a leading company in our industry, we use only the highest quality bouncy castle materials and work with a team of skilled professionals to design and manufacture our inflatables. We have a wide range of [bouncy castles](#) & [Inflatables Games](#) available, including [Inflatable Obstacle courses](#), [Gladiator duels](#), [Knockout inflatables](#), [Fairground slides](#), [Disco bouncy castles](#), [Velcro bouncy castles](#), [Event inflatables](#) and much more, all of which are designed to be safe, durable, and fun for all ages and abilities..

We are committed to customer satisfaction, and we strive to provide the best possible service to our customers. With [years of experience](#) in the industry, we have developed a reputation for excellence, and we are proud to offer our customers a wide range of high-quality products at competitive prices.

We have well over 100 positive ★★★★★ [Reviews on google](#) & continue to use our vast experience as hirers for the past 20 years in constantly improving our products!

Thank you for considering Betterbounce Direct, and we look forward to helping you find the perfect inflatable or play structure for your needs.

## **Company History**

Betterbounce was established in the UK almost 30 years ago, our brand has a reputation for excellence that spans decades. With over 20,000 products sold worldwide, we are renowned for our [1,2,3 guarantee on all of our products](#). Our inventory of over 1,500 items [in-stock](#) which are available for next-day delivery, making it easy for our customers to find the perfect [inflatable to purchase](#).

All of our weird and wonderful inflatables are manufactured under our full control. We take full control of the design, manufacture, sales & dispatch process from our huge 22,000 sqft factory right in the heart of Leeds, West Yorkshire in the UK.

We understand the challenge of searching through endless lists of bouncy castle manufacturers on Google, trying to differentiate the good guys from the bad guys, and knowing what to avoid. Customers are always welcome to visit our factory for an informal chat and to see the production facilities for themselves. Instead of reading 10,000 word blogs at night trying to figure out who the good guys are, who the bad guys are, and what to avoid, come visit us and see the quality of our products first hand. [Click here to learn more about us!](#)

## Product Quality & why choose Betterbounce?

At Betterbounce Direct, we are committed to providing our customers with the highest quality bouncy castles and inflatable. All of our PVC products are made from thickly coated, high-quality polyester or nylon weave, ensuring that they are durable, easy to clean, and resistant to dirt. Our bouncy castle and inflatable PVC material is certified fire-retardant and compliant with a variety of European standards, including BS5438, BS5867, EN71, and M2.

We use only the best PVC in the world, formulated specifically for us in a laboratory to provide optimal protection against fungi, fading, and tearing under stress. Our materials are also Lead-free and Cadmium-free and is suitable for all products associated with [EN71 and EN14960](#), and our bouncy castles come with a glossy, professional finish that is easy to wipe down and maintain. [Click here to find out more!](#)

All of our standard designs undergo [rigorous testing](#) to strict [EN14960 standards](#) before being released to the market. This includes up to two years of testing in our own hire department to ensure that all kinks have been ironed out before the product is made available. However, with nearly 30 years of experience in the industry, it is rare for us to have to revisit a design. Our products are built by hirers, for hirers, ensuring that they are [tested](#) to the highest quality and reliability and on trend! to maximise your earnings!

At Betterbounce Direct, we pride ourselves on our precision manufacturing process. Our advanced CNC machine ensures that all of our products are cut to within 100th of 1mm, and our inflatables are [printed in 1080HD](#) for crisp, clear designs. We have invested well over £100,000 in sophisticated 3D Computer Aided Design Software and a computer-controlled flatbed cutting machine, which gives unrivalled accuracy in the production process.

Furthermore, all of our bouncy castles and inflatables for sale comply with the current [EN14960 standards](#), as required by law. [Learn more about our products by clicking here!](#)

### Social media!

One of the best ways to see what we're up to, keep updated with all our special offers, events and Betterbounce in general is to follow us on social media. Simply click on the logos below to follow us on your favourite social media platform!

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# Guidance for Owners, Operators, and Attendants

Welcome to the Inflatable Equipment Operation Manual. This comprehensive document serves as your go-to resource for the safe and efficient operation of Constant Flow Land Inflatables. Whether you're an owner, operator, or attendant, this manual is designed to equip you with the knowledge and guidelines necessary to ensure the well-being of users and the compliance of your inflatable equipment with safety regulations.

## Who This Manual Is For:

- **Owners/Controllers:** If you have overall control of inflatable equipment and bear the responsibility for its inspection and maintenance, this manual is indispensable. It provides you with essential insights into maintaining equipment integrity and complying with safety standards.
- **Operators:** As individuals aged 18 and over, you are entrusted by the owner/controller to manage the day-to-day operation of the equipment when it's intended for public use. This manual offers vital instructions on safe operation practices.
- **Attendants:** If you are over 16 years old and work under the guidance of the owner, controller, or operator to assist in equipment operation, this manual is your reference point for ensuring user safety and proper equipment handling.

## Why This Manual Matters:

Inflatable equipment can provide hours of fun and entertainment, but it comes with inherent risks. Safety is paramount, and compliance with regulatory standards is not optional—it's a legal obligation. This manual is designed to:

Equip you with the knowledge needed to operate inflatable equipment safely and responsibly.  
Provide insights into the legal obligations surrounding inflatable equipment operation.  
Offer guidelines for daily checks and safety procedures.  
Outline the importance of regular equipment maintenance and inspection.  
Highlight the legal consequences of non-compliance.

By following the guidance outlined in this manual, you're not only ensuring the safety of inflatable users but also safeguarding yourself and your organization from potential legal repercussions. Your commitment to safe and responsible operation is vital, and this manual is your trusted companion on that journey.

Please read and understand the contents of this manual thoroughly. Your dedication to adhering to safety standards and best practices is the foundation upon which safe and enjoyable inflatable experiences are built.

This document was drafted primarily for airflow inflatables inline with EN14960. For sealed inflatables, please read the whole guide and the section on sealed inflatables within this document.

## Important Guidance:

Please familiarise yourself with the contents of this document before attempting to use your new inflatable. This is necessary for the safe operation of the product and to ensure reliable service from it. The advice contained in this document should be read in conjunction with the most up to date European standard document BSEN14960. Do not operate your inflatable until you have read, understood and actioned obligations under this document. Failure to do so could result in costly HSE prosecutions and court action.

Click here to find out more: <https://www.better-bounce.co.uk/category/new-for-2023/4295/bb-1125-the-bouncy-castle-rules-and-regulations-british-standards-en149602019-paper-copy#BodyContent>

Please also ensure you are familiar with the HSE PUWER regulations. Do not operate your inflatable until you have read, understood and actioned obligations under this document. Failure to do so could result in costly HSE prosecutions and court action.

Click here to find out more: <https://www.hse.gov.uk/work-equipment-machinery/puwer.htm>

Please also ensure you are familiar with the HSE Fairground & Inflatable requirements. Do not operate your inflatable until you have read, understood and actioned obligations under this document. Failure to do so could result in costly HSE prosecutions and court action.

Click here to find out more: <https://www.hse.gov.uk/entertainment/fairgrounds/inflatables.htm>

It is the responsibility of the owner to ensure all persons setting up, using/supervising or taking down this play inflatable are conversant with the contents of this manual. Better Bounce Direct Ltd do not accept any liability whatsoever from injury, damage or other claim resulting from the use of the product and our liability is limited to the manufacturing process. This product is HEAVY and suitable assistance should be deployed to ensure that it is handled safely. We do not recommend that one person carry it under any circumstances.

# Training for Inflatable Equipment Operation

Proper training for operators and attendants of inflatable equipment is not only essential for the safety of users but also a legal obligation. Failure to provide adequate training can lead to serious consequences, including Health and Safety Executive (HSE) prosecutions and potential liability in case of accidents. Here's an updated section on training:

**1. Operator Training:** The controller, whether an individual or organization, has a legal obligation to ensure that all operators receive comprehensive training in the operation of the inflatable equipment.

Training should encompass:

- Proper methods for safely operating the inflatable device.
- Procedures for the safe assembly and dismantling of equipment where applicable.
- How to conduct a thorough daily safety check.

**2. Attendant Training:** Attendants, responsible for supervising inflatable usage, must also undergo rigorous training to ensure user safety.

Attendant training should cover:

- Safely guiding users during entry and exit from the inflatable.
- Secure anchoring techniques to prevent movement during use.
- Crowd control strategies and the proper use of barriers.
- Protocols for handling situations in the event of a power failure.
- Procedures for immediate reporting of accidents, equipment defects, or breakdowns.

**3. Company Training Manual:** Every controller, whether an inflatable rental company or an event organizer, is obligated to establish a comprehensive company training manual.

The training manual should include:

- All aspects of operator and attendant training, as mentioned above.
- Company-specific safety regulations and procedures.
- Adherence to all relevant Health and Safety requirements.

**4. Legal Implications:** It's vital to understand the legal implications of inadequate training.

Failure to provide proper training can result in severe consequences, including:

- HSE prosecutions: The Health and Safety Executive can take legal action against individuals or organizations for non-compliance with safety regulations.
- Liability in accidents: In case of accidents, individuals or companies may be held liable if it's determined that insufficient training contributed to the incident.

**5. Recommended Training Programs:** The Professional Inflatable Play Association (PIPA) offers a recognized training award for Supervisors and Attendants of Inflatable Play Equipment.

- This training program is highly recommended as it provides a solid foundation for inflatable equipment operation and safety.
- The HSE has also embraced the PIPA as one of the only suppliers of endorsed qualifications.

By providing comprehensive training and adhering to legal obligations, controllers not only ensure user safety but also protect themselves from potential legal consequences. Training is a cornerstone of inflatable equipment operation, and investing in it is essential for a secure and compliant operation.

# **Safety Procedures for Manual Handling**

Prior to handling or operating Betterbounce inflatable equipment, it is imperative to thoroughly review this manual and any supplementary operating instructions. You can also access free advice from our after-sales support team. Our team is readily available to assist with technical and health and safety inquiries, ensuring your operations run smoothly and securely.

Ensuring the safety of your team during manual handling processes is paramount. You are legally obliged to evaluate and minimize the risk of injury stemming from manual handling tasks. This obligation encompasses all activities involving the transportation, loading, unloading, assembly, disassembly, packing, or relocation of inflatables.

For comprehensive guidelines and recommendations, please consult the HSE (Health and Safety Executive) Code of Practice titled "HSE Guidance on Regulations L23 (Manual Handling Operations 1992)."

Inflatables can be considerably heavy, particularly when exposed to moisture. Safely managing their handling is crucial to prevent accidents. Proper folding and rolling of the inflatable after use is the initial step to ensure safe handling. A well-executed, firm roll, with flat ends, significantly facilitates handling compared to a loosely rolled and floppy inflatable. Using a 2-wheeled sack barrow, you can easily transport it and load it onto a truck or trailer.

It is vital to remember never to attempt lifting an entire inflatable at once. Instead, lift one end at a time. When the rolled inflatable is positioned horizontally, assume a squatting posture, and use your legs to push and lift, leaning your shoulder into the end.

Leveraging the strength of your leg muscles, you can safely lift the inflatable onto its end. Subsequently, use the sack barrow to move it as needed. When loading the inflatable onto a truck or trailer, stand it upright at the edge of the platform, leaning the top onto the platform's edge. Then, lift the bottom end and gently roll it over, ensuring safe and secure handling throughout the process.

## Setting up your inflatable

If using a separate ground sheet (recommended), place and secure this on the surface on to which the inflatable is to be erected.

- With assistance, roll out the inflatable; ensuring the blower pipe is at the rear.
- Open out the Inflatable, which will have been folded into a third of its size for transportation purposes, by pulling on the nylon webbing anchor points.
- Once the inflatable is in the desired position, use the steel anchor stakes to secure it to the ground. The anchor loops should be left with a little play but the stakes should be driven fully home and be level with the surface at a 45 degree angle. The unit may require repositioning once inflated.
- Next, pull the blower pipe straight and place the fan behind the pipe. Stretch the blower tube over the funnel of the fan as far as it will go and secure in place by tying with the nylon rope that was provided with the inflatable. NOTE: The fan should be placed on a dry and level surface to ensure stability and reduce the chance of moisture affecting the device. Make sure no litter. This could foul the fan intake vent.
- Please note that many of our inflatables feature 2 blower inflation tubes. Should you only require to use 1 tube, simply tie the 2<sup>nd</sup> tube securely so that no air leaks out and tuck it away safely. Some inflatables have a Velcro square flap to tuck away and hide the inflatable inside. The spare tube will come in handy when using a castle on a generator with lower power or on an extension lead where the blower is underpowered and multiple blowers are required. It's also helpful for site positioning and great for units reaching 15-20 year old who like us all need an extra helping hand getting going when we age : )
- Using a suitable extension cable, connect the fan to a 230V domestic electricity supply using a plug-in RCD safety device (not provided). This device is essential to safeguard against electrical shock (as with all devices used outdoors, such as strimmers, lawnmowers, water pumps etc.)  
**Do not use without this device in place as the fan is powered by mains voltage.**
- Ensuring you have a view of the inflatable, turn on the power. Do not let anyone stand on the inflatable until it is fully erect. This should only take about one minute.
- The fan should be left running all the time that the inflatable is in use. This is a continuous pressure device. Air is forced into the inflatable by the fan and then slowly escapes from the tens of thousands of needle holes produced during manufacture. When the inflatable is used excess capacity of air is exhausted via a valve in the fan and the "Bounciness" and shape of the structure is maintained. The fan is designed to maintain the necessary volume of air entering the structure. It cannot be over inflated if the correct fan is used.
- Once the inflatable is erected, remember to check the pressure of the unit with a manometer as required by HSE. If you don't have one, here's a link to a calibrated version we sell here ([Click here](#)) The reading must be minimum of 1KPA (4" Watergauge) and a maximum of 2kpa or above to be safe to use. This reading must be recorded for later reference and it's good practice to include this in your signed delivery paperwork or disclaimer form.
- Once the inflatable is erected, remember to check the windspeed onsite with an Anemometer as required by HSE. If you don't have one, here's a link to a version we sell here ([Click here](#)) The reading must be under 24mph at all times to be safe to use. This reading must be recorded for later reference and it's good practice to include this in your signed delivery paperwork or disclaimer form. It's also good practice to check the forecast of wind with the met office too and

lave the device with your clients if you believe there maybe a time in the day that's close to the 24mph limit.

- For indoor use, please use sandbags with strong holders to make the unit stable. Sandbags can be purchased here [\(Click here\)](#) If using sandbags outdoors, you must achieve 167kg per anchor point to comply with the law.



# Safe Inflatable Use

Please be aware of the following rules for safe use of the equipment.

- Our inflatables are designed for use by children of up to 65kgs Unless specified specifically for Adult Use or taller users within the inflatables user tags.
- No food or drinks or chewing gum to be allowed on or near the Inflatable. This will avoid choking and mess
- All shoes, glasses, jewellery, badges MUST be removed before using this Inflatable.
- No face paints, party poppers, coloured streamers or silly string to be used either on or near the Inflatable.
- No smoking or barbeques near the Inflatable.
- Climbing, hanging or sitting on walls is DANGEROUS and must not be allowed.
- A responsible Adult must always supervise the Inflatable , This Adult must be over the age of 18 and deemed a competent person by the HSE. Always ensuring that the Inflatable is not overcrowded, and limit numbers according to the age, size and stature of children using it. Try to avoid large and small children from using it at the same time. Always ensure that the inflatable is used correctly, and that the maximum user heights and Maximum user data printed on the inflatable is always adhered to.

## Maximum user weights

Please ensure all users remember that a maximum weight limit is also applicable, regardless of the user height as follows:

Slides upto 6ft platform: 65kg

Slides over 6ft platform: 85kg

Inflated walls, under 12x15ft with 300mm thick walls (approx.): 65kg

Inflated walls, over 12x15ft with 300mm thick walls (approx.): 75kg

Inflated walls, under 12x15ft with 500mm thick walls (approx.): 75kg

Inflated walls, over 12x15ft with 500mm thick walls (approx.): 85kg

Netted walls, under 12x15ft: 55kg

Netted walls, over 12x15ft: 55kg

Obstacle course Netted walls (When used for the purpose in which it was designed for): 85kg

Obstacle course Netted walls (When used for bouncing and sliding not racing): 65kg

Moonwalk Domes upto 15x15 : 75kg

Moonwalk Domes over 15x15 : 85kg

- Ensure that children are not pushing, colliding, fighting or behaving in a manner likely to injure or cause distress to others.
- No pets, toys or sharp instruments are allowed on or near the Inflatable.
- If the Inflatable is not being used for any part of the day, please switch the fan off at the mains.
- Do not allow anyone to bounce on the front safety step as a child could easily bounce off the inflatable and get hurt. The step is there to assist users in getting on or off only.
- Ensure that no one with a history of back or neck problems or who suffers from a heart complaint uses the Inflatable or anyone who is feeling unwell or suffering the effects of alcohol or drugs.

- Do not allow anyone to be on the Inflatable during inflation or deflation as this is DANGEROUS.
- Ensure that Children are not attempting somersaults and are clothed appropriately and that nothing can fall out of their pockets.
- Ensure that an area around the unit is completely clear as stated BSEN14960
- The Inflatable must not be used if it becomes wet. If no shower cover is fitted, In the event of rain, the unit should not be used.
- In the event of heavy rain, it is strongly recommended that the Inflatable be switched off. Any wetness can be dried with a towel.
- If the fan stops working, ensure all users get off the inflatable immediately.
- As stated above, the fan should be connected via a RCD device at the power supply. Try pressing this to reset it, also check the fuses and make sure the blower tube or deflation tube has not come undone or something has not blown onto and is obstructing the fan intake.
- If the fan overheats, or loses power, switch it off at the mains, and then switch it back on again 5 minutes later, and it should restart. If it does not, check supply as above.
- Never use this unit without proper anchorage in place on each anchor point, it could blow away in the wind, topple over or detach the fan etc.
- If using indoors ensure enough height clearance so that no part of the structure fouls the ceiling, light fittings other obstructions.
- If using indoors or on solid surfaces, anchor in place using substantial sandbags or other heavy weights to stop movement. In terms of stability, EN14960 states that an inflatable must be stable when erected indoors. It's down to the operator to determine what stable means. This will change depending on the type, height, size and mover of users and will be decided upon during the Risk Assessment stage of installation by the operator. As a general rule, any smaller children's inflatables will required 25kg per anchor and 50k per anchor on larger or adult inflatables. When assessing inflatable slides, The operator must pay close attention to stability of the slide by predicting or replicating a worse case scenario of the largest user type and number, eg 6 adults at the top on one side, deliberately trying to rock the slide. If the operator/ installer does not demonstrate the skills required, please refer to the anchorage requirements of EN14960.
- Do not modify or alter the unit in anyway – To do so will invalidate the warranty.
- Do not have this unit repaired by anyone else – This will invalidate the warranty and we will REFUSE to carry our further repairs.
- Do not apply any paint or transfers to the unit – This will invalidate the warranty
- This Inflatable should only be cleaned using mildly soapy water and then thoroughly rinsed. Attaching the blower and leaving it to run will help to dry it out. This may cause the unit to "Bubble". This is normal and excess water should be removed using a dry towel or similar no abrasive and absorbent material. DO NOT STORE WHEN WET If it is necessary to leave the inflatable in a wet condition, do not leave it that way for long and wash/dry off as soon as the weather or use of suitable indoor facilities permits. Failure to adhere to this will ruin your inflatables.

## Deflating and packing

- The following instructions refer to a roofed inflatable bouncy castle, but the basic principles will apply to all inflatable units. If you are not a competent person in terms of inflatables. Please ask for a more specific set of operations and we will be happy to help.
- To deflate the unit, turn off the fan by removing plug from power outlet and disconnect the blower pipe from the fan. NOTE: No person should be on the unit at this time.
- If left for around 5 minutes (perhaps whilst the anchor stakes are removed), the unit will fully deflate.
- Fold rear arch and front arch towards the centre of the castle bed, laying them flat as possible.
- Next fold the sidewalls towards the centre, laying them flat onto the arches.
- Using the anchor loops, pull one side of the castle towards the centre (to lie on top of the side walls) until only 50% of the opposite side is visible. Then do the same with the other side. In this way you should have folded the castle into 1/2 of its normal footprint, with a joining line down the middle, then fold one side over the other, so the castle is now in one long line and 1/4 of its normal width. We advise it to be folded this way so that clean parts (inside) stay clean and the Mucky parts (base) stay mucky and together.
- Commencing at the step end, roll the castle up tightly, as you would a sleeping bag. This normally requires two people. Continue to roll the castle, expelling excess air as you go, until the blower pipe is reached.
- Unroll the castle again and repeat step 6. This time stop slightly before the end and tuck the blower pipe inside and roll on a few more turns to secure.
- Finally using the rope provided, place a length under the castle and tie up as it arrived from the factory.
- These are the best instructions that it is possible to give in written form. Most users develop their own technique through experience.
- Please ensure your inflatable is not used without a full assessment of the site and both a Risk Assessment and method statement is in place. Examples have been provided to you previously on email. If you still require a copy, then please send us an email asap.

## Bouncy castle & inflatable weather safety advice

Before inflating or operating your inflatable, it is essential to read and fully understand our Weather safety advice and please ensure that supervisors are present at all times to maintain a safe environment.

**Supervision:** Each exit and entrance of the inflatable must be supervised by at least 1 or 2 responsible adults. These adults should possess adequate insurance coverage and relevant experience. Additionally, it is crucial to assign a staff member to monitor weather conditions, paying attention to the Beaufort Scale.

You can find information about the Beaufort Scale on the Met Office's website at this link:

<http://www.metoffice.gov.uk/weather/marine/guide/beaufortscale.html>

For inflatable slides and structures such as domes and mazes, there should be a supervisor positioned at the top of the steps for slides to ensure users are seated when coming down, on domes and mazes, their needs to be a supervisor inside monitoring the users.

**Hot Weather:** During hot summer months and heatwaves, it is important to consider the temperature of the inflatable's fabric when exposed to direct sunlight. To prevent burns to the soles of children's feet, ensure they wear socks. Erecting shade or positioning the inflatable away from direct sunlight is advisable.

It is not recommended to douse the inflatable with water, as this may temporarily cool it but can magnify the sun's rays and heat up the PVC again.

If the inflatable becomes too hot, please prohibit anyone from using the inflatable, including adults, from using the equipment to reduce the risk of burns.

**Wet & Windy Weather:** Please be aware that all inflatables are sensitive to all weather conditions. While you will always wish to fulfil your contractual obligations with your client to install the equipment, safety remains paramount.

Certain weather conditions such as high winds, rain, and other factors may make the inflatables unsuitable for use.

Inflatables should not be used in wind conditions exceeding 24 miles per hour or in wet or hot conditions. The hirer is responsible for taking suitable action to prevent injuries unless your staff has been hired at an additional cost to assist.

We advise regularly checking the Met Office's wind and rain readings at the start of your hire to determine the frequency of checks. If the wind speed is expected to be in the caution zone of 19 to 24 MPH during your hire, please check the forecast every 15 minutes using the Met Office app or website: <http://www.metoffice.gov.uk/weather/marine/guide/beaufortscale.and.inflate/> deflate your inflatable accordingly in good time and with good safety margins.

The Beaufort scale is a nationally recognized wind monitoring scale, adapted to suit inflatables. It can assist you in making informed decisions and can be used with an anemometer on the day.

A copy of the Beaufort Scale has been listed below:

## BEAUFORT WIND SCALE

| Beaufort Number | Description                         | Wind speed                               | Wave height           | Sea conditions                                    | Land conditions                                |   |
|-----------------|-------------------------------------|--|-----------------------|---|--|---|
| <b>0</b>        | Calm                                | < 1 knot<br>< 1 mph<br>< 2 km/h          | 0 ft<br>0 m           | Sea like a mirror                                 | Smoke rises vertically                         |    |
| <b>1</b>        | Light air                           | 1–3 knots<br>1–3 mph<br>2–5 km/h         | 0–1 ft<br>0–0.3 m     | Ripples   | Direction shown by smoke drift                 |    |
| <b>2</b>        | Light breeze                        | 4–6 knots<br>4–7 mph<br>6–11 km/h        | 1–2 ft<br>0.3–0.6 m   | Small wavelets                                    | Wind felt on face                              |    |
| <b>3</b>        | Gentle breeze                       | 7–10 knots<br>8–12 mph<br>12–19 km/h     | 2–4 ft<br>0.6–1.2 m   | Large wavelets                                    | Leaves and small twigs in constant motion      |    |
| <b>4</b>        | Moderate breeze                     | 11–16 knots<br>13–18 mph<br>20–28 km/h   | 3–5 ft<br>1–2 m       | Small waves                                       | Raises dust and loose paper                    |    |
| <b>5</b>        | Fresh breeze                        | 17–21 knots<br>19–24 mph<br>29–38 km/h   | 6–10 ft<br>2–3 m      | Moderate waves                                    | Small trees and leaves begin to sway           |    |
| <b>6</b>        | Strong breeze                       | 22–27 knots<br>25–31 mph<br>39–49 km/h   | 9–13 ft<br>3–4 m      | Large waves                                       | Large branches in motion                       |   |
| <b>7</b>        | High wind, moderate gale, near gale | 28–33 knots<br>32–38 mph<br>50–61 km/h   | 13–19 ft<br>4–5.5 m   | Sea heaps up                                      | Whole trees in motion                          |  |
| <b>8</b>        | Gale, fresh gale                    | 34–40 knots<br>39–46 mph<br>62–74 km/h   | 18–25 ft<br>5.5–7.5 m | Moderately high waves                             | Twigs break off trees                          |  |
| <b>9</b>        | Strong/severe gale                  | 41–47 knots<br>47–54 mph<br>75–88 km/h   | 23–32 ft<br>7–10 m    | High waves  | Slight structural damage                       |  |
| <b>10</b>       | Storm, whole gale                   | 48–55 knots<br>55–63 mph<br>89–102 km/h  | 29–41 ft<br>9–12.5 m  | Very high waves                                   | Trees uprooted, considerable structural damage |  |
| <b>11</b>       | Violent storm                       | 56–63 knots<br>64–72 mph<br>103–117 km/h | 37–52 ft<br>11.5–16 m | Exceptionally high waves                          | Widespread damage                              |  |
| <b>12</b>       | Hurricane force                     | ≥ 64 knots<br>≥ 73 mph<br>≥ 118 km/h     | ≥ 46 ft<br>≥ 14 m     | Exceptionally high waves, sea is completely white | Devastation                                    |  |

In order to reference the Scale correctly, you will require the use of an Anemometer, which can be purchased here: <https://www.better-bounce.co.uk/category/accessories/1902/bb-1001-1x-anemometer-wind-speed-reader#BodyContent>

These readings must be recorded on delivery and throughout the event as required by the HSE, 15 Minute intervals being the recommended practice, along with the inflatables internal pressure.

It is good practice to record both the delivery wind speed and the inflatables pressure on delivery and a good place to have this is on the signed customer hire agreement where it can be kept indefinitely.

It's also good practice to provide the client with an Anemometer and a copy of the following helpful sheet to ensure maximum safety at an event.

## WEATHER CONDITIONS

# STAY SAFE GUIDE

**WE HOPE YOU ENJOY USING THIS INFLATABLE FOR YOUR SAFETY AND THE SAFETY OF OTHERS. PLEASE ADHERE TO THE SAFETY INSTRUCTIONS BELOW.**

We have provided you with a wind speed measurement device (an Anemometer) for the purposes of safeguarding against inflatable use in high winds.

The maximum wind speed in which an inflatable can be used is 38 km/h (Force 5 on the Beaufort Scale) / 24 mph.

You have been provided a simple demonstration that comprehensively covers the use and operation of the Anemometer.

You understand it is your responsibility to be aware of changing wind conditions and record the wind speed in the immediate vicinity of the inflatables location. Should the recorded wind speed approach 38 km/h (Force 5 on the Beaufort Scale) / 24 mph or higher, you **MUST** quickly and safely evacuate the users and the inflatable device turned off.

Using the instructions demonstrated to operate the Anemometer, wind speed recordings are required to be completed every 30 minutes (or more frequently if there is any indication of wind speed increasing) by a competent persons (aged 18+) supervising the use of the inflatable device.

Following the demonstration, the first recording has been made for you by the operator.

Indication that wind speed is increasing could be (but are not limited to):  
Wind is raising dust and loose paper, small branches are moved, small trees in leaf begin to sway.

As stated above, if the recorded speed is 38 km/h (Force 5 on the Beaufort Scale) / 24 mph or above, then all users should be evacuated from the inflatable as quickly and safely as possible with the inflatable then being turned off.

The inflatable should not be turned on until wind speeds have been consecutively and consistently recorded at less than 20mph for 30 minutes, taken at 5 minute intervals for the 30 minute duration.

If at any time any recorded wind speed is higher than 17mph then recordings must increase in frequency to every 5 minutes for a period of 30 minutes. This frequency may only return to every 30 minutes when there have been recordings consistently below 18mph for the entire 30 minute period and each recording is below 18mph.

If any time you are unable to take a wind recording for any reason, inflatable use must cease and desist with the inflatable being powered off after all users have been evacuated quickly and safely.

If at any time the Anemometer ceases to function, please contact us immediately for advice.

This sheet is to be used for recording the wind speed at previously stated intervals of frequency. The time of each recording must also be noted.

You understand it is your responsibility to carry out and record these wind recordings at regular intervals, and to carry out the safe and quick evacuation, should the wind conditions approach or reach 38 km/h (Force 5 on the Beaufort Scale) / 24 mph.

[illegible]



## Hardstanding & Sandbags for use with inflatables

The regulations surrounding Sandbags isn't straight forward to explain, however the compliance is really simple as outlines below.

**Maximum windspeed and suitable anchors:** The maximum windspeed an inflatable can be operated in is 24mph and that includes any forecast gusts.

Every inflatable must be fitted with a minimum of 6 anchor points and this will increase as the inflatable increases too.

Each of the anchors must be secured using 380mm long, 16mm thick pegs like these: [www.better-bounce.co.uk/ search.aspx?q=pegs#BodyContent](http://www.better-bounce.co.uk/search.aspx?q=pegs#BodyContent) and hammered into place angled away from the inflatable itself.

These pegs should be sufficient to hold an inflatable down in wind speeds up to 24mph outdoors as specified in EN14960. Anything higher than this reading and an inflatable should not be used at all.

**High level anchors:** High level anchors must be treated the same as any other anchor and pegged at a 45 degree angle. The easiest way to achieve this is to measure the height of the end of the D ring from the floor. If this measures 1500mm for example, now measure 1500mm out from the castle and this will be 45 degrees. This is the length and angle that you must use to secure the castle in place on every occasion.

**HSE Requirements & Records:** Remember it's also an HSE requirement to record the windspeed, along with the blower pressure on delivery and offer your clients advice accordingly. For this you would need the following:

Manometer: [www.better-bounce.co.uk/ search.aspx?q=manometer# BodyContent](http://www.better-bounce.co.uk/search.aspx?q=manometer#BodyContent)

Anemometer: [www.better-bounce.co.uk/ search.aspx?q=anemometer# BodyContent](http://www.better-bounce.co.uk/search.aspx?q=anemometer#BodyContent)

The minimum internal pressure must be 1kpa/ 4"Wg) and a maximum of 2kpa, which do not include inflatable domes such as moonwalks and snow globes.

## Operation of Sealed Inflatables manual

Sealed inflatables operate very differently to airflow inflatables with a massive change in operating procedure and pressures. A sealed air inflatable only requires inflating once and then topped up and pressure tested at regular intervals to maintain operating pressure as opposed to being let like and airflow inflatable.

**To inflate the device, Follow the instructions below;**

- Roll out the inflatable and peg in the corners to prevent an accident when inflating.
- Check the pressure requirement of the inflatable (2psi)
- Ensure that the controller has marked the inflatable with the maximum operating pressure at the inlet nozzle
- Ensure you are using the inflation device supplied by the manufacturer only. This should also have been marked by the controller
- Now, simply unscrew the inflatable nozzle and push in the inflator hose.
- Switch on the pump and wait for the inflatable to fill.
- Do not leave the inflatable filling on its own. Always ensure the operator is stood with the inflator at all times.
- When the inflatable is 80% full, switch off the inflation device move the inflatable into its final position, adjust the initial pegs and re-peg accordingly and always when the weather conditions are on your side.
- Now continue inflating the inflatable. When the inflatable is full, remove the blower and test the internal pressure with a manometer and record the inflatable's internal pressure.
- Have a final check of the anchorage & the inflatable is now set and ready to go.
- Once inflated, make sure the operator records the operating pressure and adjusts it by inflating or deflating accordingly hourly or every 15 minutes in hot weather where internal air may expand and contract.
- Sealed air inflatables can remain inflated anything from 1 to 48 hours so please do not be tempted to leave them unattended. They must be checked regularly and switched off and deflated when the operator leaves the supervision area or at the end of the event.
- **Overpressure can result in severe injury or death. DO NOT operate sealed inflatables unless you are a competent person under and qualified under the controllers and operators' course by PIPA.**

### **More information on sealed inflatable safety**

- The maximum operating pressure of our sealed inflatable is 2 PSI
- The maximum test pressure of our sealed inflatables for test purposes is 3 PSI
- Test pressure can be achieved using an inflation device with test pressure gauge or a Manometer.
- The maximum load from spectators should be zero, however, the inflatable can withstand up to 3psi of pressure. Users should not be permitted to climb or bounce on the sides as this will increase pressure and can lead to injury.
- Pressure testing should be performed prior to every use, every hour in hot or changing weather and recorded accordingly. The inflatable must also be pressure tested during its annual safety test by a competent person and referenced against degradation & wear and tear.
- The person commissioning the inflatable on site, must mark each inflation and deflation point with the maximum operating pressure to prevent overloading. This can be done with a marker pen and must be altered according to the annual test report findings.



- All repairs to sealed inflatables must be carried out by a competent person and the inflatable must be rested to the British standards. DO NOT attempt any self repairs unless directed by the manufacturer.
- Deflation. Inflatables fitted with over pressure valves or standard valves all regulate internal pressure and will leak should enough external pressure be applies. Ie, a child bouncing or sitting on a wall.
- Prior to operation, please read, understand HSE's "Sealed Inflatables – Safety in use document" and ask the manufacturer if you are unsure of anything.

### 5.3 In-service Inspection

An in-service inspection should be carried out periodically (maximum 12 months) to independently check that the inflatable device is in good condition and in good repair. This in-service inspection should be completed by a competent person, who determines the inspection interval. The Competent Person shall also ensure that all safety devices function correctly and within tolerance.

The key areas that the competent person should include as part of their annual in-service inspection should include, where relevant, but not be limited to:

- All anchor ropes and anchors are available and in good condition.
- The number of anchor points remains sufficient.
- The recommended anchor and anchor rope details are included within the operating instructions.
- The inflation device conforms to the original manufacturer's specification.
- Any devices fitted to the inflation source (blower fan or compressor) designed to prevent over-pressurisation are in good condition. Where possible, the device should be witnessed and tested to ensure either: o the blower fan is compatible and that it stalls before the maximum safe pressure is exceeded; or the compressor is fitted with a safety cut out (pressure sensor or relief valve) to prevent over-pressurisation of the sealed inflatable.
- The fabric and joints are in good condition.
- **Where the failure of the device could result in injuries to persons the fabric strength remains within the manufacturer's specifications.**
- The maximum operating pressure is indelibly marked at the inflation point.
- The maximum operating wind speeds are clearly marked.

### The Controller Responsibilities

Throughout the working life of the sealed inflatable, the Controller shall ensure that any significant concerns resulting from the periodic inspections (design review, initial test and annual thorough inspection) are adequately addressed prior to placing or returning the inflatable into service. The controller is responsible for ensuring that adequate maintenance of the sealed inflatable is carried out, in line with requirements specified in the maintenance manual and any recommendations made by the Inspection Body.

The maintenance manual must include adequate instructions detailing the techniques required to repair damage to fabric such as tears, holes, worn or broken load tapes etc. Repairs to the inflatable fabric should only be undertaken in accordance with the manufacturer's instructions and should only be carried out by a competent person or organisation approved by the manufacturer and/or competent person

Completed repairs should be inspected and be accompanied by a certificate issued by the competent organisation (who completed the repairs) stating that the repairs have been completed to a satisfactory standard and in accordance with the manufacturer's instructions or those from another competent organisation/person. Such certificates should be retained by the controller of the inflatable and provided to the inspection organisation, who should record details of the repair as part of the annual inspection. All documentation is intended to demonstrate the ongoing maintenance of the inflatable during service.

Where a safety-critical modification is made (including the replacement of a component which departs from the original design specification) the modification must be subjected to a design review before the change is made. These could include changes in the operating parameters of a device, such as a replacement blower fan/compressor, change of use, changing the height restriction or number of occupants on the sealed inflatable at any time etc.

If at any time a defect is found which could possibly lead to danger, the public should not be allowed to use the device until the cause has been identified and the defect remedied. This may include checking all similar components. If there is any doubt about continued safety the device should not be used until an inspection body has confirmed that it is safe to do so.

## **Operator responsibilities**

The Operator takes overall responsibility to ensure that the sealed inflatable is located well away from possible hazards such as overhead powerlines or other obstacles with hazardous projections (e.g. fences). If the ground surface is abrasive, oily or dirty, a ground sheet should be used to prevent wear and tear of the base material. Before siting the inflatable, a close visual inspection of the base area must be undertaken, to ensure any discarded objects or other debris are removed, to minimise the potential for tears or piercing of the sealed inflatable.

The person(s) filling the sealed inflatable must remain in attendance during setup at all times. The power source (i.e. blower fan or compressor) must always be physically disconnected from the sealed inflatable, once inflation pressure has been achieved. This is to ensure that the risks from inadvertent energisation or continuing to fill/overfill the sealed inflatable are minimised.

The operator should take regular measurements of the internal pressure using a suitable pressure measuring device to ensure that the internal pressure remains within the maximum and minimum operating range specified by the manufacturer, in the operations manual.

Note, that an increase in the internal temperature of the air within the inflatable could result in an internal increase in pressure. The colour of the inflatable can play a part in any temperature rise, with dark colours absorbing a lot more heat than lighter ones because they absorb more light energy.

The operator should consider whether there is a need to take additional pressure measurements on hot days and if necessary, adjust the internal pressure to the required level as stipulated in the operations manual. 7.5 When the inflatable is being operated outside, the operator should use a suitable hand-held anemometer to measure the wind conditions at regular intervals. The operator should visually check for changes in wind direction (e.g. by looking at how the trees are swaying) to make sure readings are taken in the direction of the wind. **If an anemometer is not available, the inflatable should not be operated outside.**

Smartphone weather applications are not suitable to assess wind speed as they do not take localised wind conditions into account.

Sealed inflatables should not be used when the wind or gusts are in excess of the maximum safe wind speed specified by the manufacturer. This information should be stated clearly both on the inflatable device and in the operations manual.

**Sandbags Outdoors:** The British Standards for inflatables (EN14960) require the use of pegs to withstand a resistance of 167 KN, which is easily achieved with the metal stakes above.

If you wish to replace these pegs with sandbags on hardstanding surfaces, you would be required to achieve the same 167 KN of resistance. This would necessitate using 7x 25 kg sandbags on each anchor point, which quickly adds up to literally tons of ballast even for the smallest inflatables. As you can imagine, that's really inconvenient and why not many people do hardstanding outdoors.

The sandbags also need to have strong fixings in place and a suitable container such as these: [www.better-bounce.co.uk/ search.aspx?q=sandbag# BodyContent](http://www.better-bounce.co.uk/search.aspx?q=sandbag#BodyContent)

Other options include tying off the anchors to water bails, concrete barriers, vehicles, fence posts and other "fixed" items with a resistance 167kg or more.

**Sandbags Indoors :** Since there is no wind indoors, the sandbags are only required for the stability of the inflatable itself to ensure it doesn't move around or tip if used inappropriately. In many cases one on each anchor is usually absolutely fine, however, larger sides may need up to 3 on the back corners for example to aid stability.

#### **BSEN14960 (The Bouncy Castle rules and regulations Document)**

Remember that all of the above information and lots more can be found within EN14960, Which is the bouncy castle bible for our industry. The cost of this document is usually around £300-£380, however, we have managed to acquire copies at a severely reduced rate and pass this cost on to our clients. You can purchase a copy here: <https://www.better-bounce.co.uk/category/new-for-2023/4295/bb-1125-the-bouncy-castle-rules-and-regulations-british-standards-en149602019-paper-copy#BodyContent>

# What is a manometer and how to use it

The Manometer is every bouncy castle hirers best friend and it's impossible to comply with the regulation without owning one.

All EN14960 inflatables are only permitted to be hired out with a minimum pressure reading of 1kpa, and a maximum of 2kpa, which must be recorded on delivery of EVERY hire, both in domestic gardens and commercial events.

Make sure you buy your bouncy castle manometer today. All the usually features are listed below but please contact us to check the exact features as we change suppliers regularly to keep the costs down for you.

## HSE Guidance 13.06.2022

The following guidance has been issued by the HSE and contains vital information that bouncy castle hirers and event organisers should be made aware of.

The main information changes are the requirements of the internal pressures and external wind speeds to be monitored at all times during an event and record the information required.

And the supervision explanations from EN14960 have been reinforced and now issued to local trading standards, HSE officers and local authorities.

The document can be read in full by clicking the following link; <https://www.hse.gov.uk/foi/internalops/og-00130.pdf>

## Extracts;

The following extract has been taken from the enforcement section of the document;

| Inflatable (Bouncy castles, slides etc.)   |        |   |
|--|--------|---|
| Inflatable not properly secured (e.g., not all tie-down points used or inadequate stakes/ballast, tie down points damaged and not in use). | PN     | Check PIPA tagged/ADIPS Doc. Check operator manual for information that inflatable complies with BS EN 14960:2013 Inflatable play equipment. Safety requirements and test methods   |
| No means of measuring wind speed available (anemometer)  | PN     | BS EN 14960 recommends that the maximum windspeed in which inflatable play equipment should be used outdoors is 38 km/h which is Force 5 on the Beaufort Scale (small trees in leaf begin to sway).<br><br>The device controller must have an effective means of measuring wind conditions and if they do not and there is an immediate and serious risk of personal injury, a PN should be considered. |
| No means of measuring internal pressure of device available (manometer)  | PN/NOC | The device controller must have an effective means of measuring the internal pressure of the inflatable device and if they do not and there is an immediate and serious risk of personal injury, and a PN should be considered for larger inflatable devices where the internal pressure of the device is imperative for the safe operation i.e., retaining people within the device at height.         |
| Electrical equipment including blowers in poor condition   | PN     | A PN should be considered in circumstances where immediate repair cannot be undertaken  |

HSE has stated that they now want the end-users to ensure the inflatable has all the required pressures you'd normally find on an annual test during everyday hires. They require this information to be checked on delivery and recorded along with any relevant wind speeds. They also insist in other documents that these devices are calibrated annually so please ensure you have one calibrated.

## But is it needed and how do I use a manometer?

Whilst this all sounds over the top, we all have that one blower that just isn't as good as the rest but how good is it? What pressure does it give out? Is it enough pressure to keep an inflatable slides back wall stable and safe for example? Who knows???

The operation is really quite simple.

Simply insert the clear plastic tube of the manometer into the blower tube, seal the blower strap as normal.

Carry on setting up the inflatable as normal.

When the inflatable is fully inflated, record the manometer reading on your driver's logs, disclaimers or delivery sheets, along with the wind reading and remove the device.

It really is quite simple.

The manometer doesn't need to be left with the client but I recommend leaving the wind speed meter.

The whole process takes under 30 seconds and is something I'm afraid we must all get used to.

### **Readings;**

If the Manometer reading is over 4" water gauge(1 kpa) then the inflatable can be used in line with EN14960.

If the Manometer reading fails to achieve 4" water gauge (1 kpa), then simply change the blower for another and retest, Add an additional blower or use a larger horsepower blower to achieve 4" water gauge (1 kpa).

If none of the above work to achieve the 4" water gauge (1 kpa) requirements, then the inflatable is not fit for use and must not be used.

## **Why do we use manometers and not rely on blower HP.**

A 1.5HP blower from every manufacturer gives a different pressure reading from new on the same inflatable with a range as big as 20%

The HP is the power of the motor and gives no indication of how much air leaves the blower or at what speed or pressure it leaves so its completely irrelevant to anything other than an initial guess at which one to pick out and try first.

- Now age a blower 3-4 years and you've another 10-25% drop.
- Dirty fan blades mess with the airflow, another 10-30% drop.
- Add a 50m extension cable and the pressure reduces further.
- Use the HORN7 cable with a better AMP rating and the pressure goes up.
- Use 1.5mm 3 core instead of 2.5mm and it goes down.
- Use multiple splitters or feed disco or light units from the same cable and the pressure goes down.
- Use a 4Hp petrol blower and you're somewhere around a 2.5-3Hp electric blower capacity equivalent.
- Use a generator and your HP can drop out by up to 30% too.
- This alone can reduce an inflatable from being perfect on a 1.5HP to needing a 2HP.

Now throw multiple blower tubes into the mix and the whole theory of HP is wiped out. You can use whatever combination of blowers you see fit but they must always achieve the manufacturer's recommendations or a minimum of 1kpa at the unit. This must be measured at the inflatable with a Manometer device in line with HSE's recommendations.

# Using an Anemometer for Safe Bouncy Castle Operation

An anemometer is a crucial tool for monitoring wind speed, especially when setting up and operating bouncy castles outdoors. Windy conditions can pose a significant safety risk, so it's essential to use an anemometer correctly to ensure safe inflatable play, particularly for inflatables falling under the EN14960 standard and beyond. Here's a guide on how to use an anemometer effectively:

- 1. Selecting the Right Anemometer:** Ensure you have a reliable anemometer suitable for measuring wind speed accurately. It's advisable to choose a digital anemometer with user-friendly features and clear wind speed readings and comes with a calibration certificate as advised by HSE.
- 2. Familiarize Yourself with the Device:** Read the manufacturer's instructions to understand how your specific anemometer operates. Learn how to switch it on, calibrate it, and read the wind speed measurements. Before each use, inspect the anemometer for any physical damage, malfunction, or worn-out parts. Make sure the batteries are sufficiently charged or replaced as needed.
- 3. Setting Up the anemometer and measuring windspeed:** Position yourself in an area where you want to measure wind speed, ensuring you have a clear line of sight to the inflatable. Hold the anemometer at arm's length and away from your body to avoid influencing the wind speed reading. Aim the anemometer directly into the wind. Wind direction matters, so ensure you are facing the oncoming wind. Steadily hold the anemometer in place for a few moments until it provides a stable reading. Read and record the wind speed displayed on the anemometer's screen.
- 4. Monitoring wind speed & know your limits:** Continuously monitor wind speed throughout your inflatable's operation. Pay attention to sudden increases in wind speed, as these can be particularly hazardous. Always follow the manufacturer's guidelines for the maximum permissible wind speed for your specific inflatable. Do not operate the bouncy castle if wind speeds exceed the recommended limits. Keep in mind that wind speed limits can vary based on the size and type of inflatable but as a general rule no inflatable must be operated above 24mph
- 5. Safety Protocols & record keeping:** If wind speeds approach or exceed the specified limits, promptly deflate and secure the inflatable. Exercise caution and prioritize safety. Never compromise on safety, even in mildly windy conditions.

Maintain records of wind speed measurements and the times at which they were taken. This documentation can be valuable for ensuring compliance with safety regulations and for future reference.

- 6. Training and Certification:** Ensure that individuals responsible for operating bouncy castles are trained in the proper use of anemometers and are aware of safety protocols. - Certification or training in inflatable safety is highly recommended. PIPA offer a really good operator training course which can be found at the end of the following link: <https://www.pipa.org.uk/>

Using an anemometer correctly is a proactive measure to mitigate wind-related risks when operating bouncy castles, especially for those falling under the EN14960 standard and beyond. Remember that safety should always be the top priority, and adherence to wind speed limits is crucial for preventing accidents and ensuring a safe and enjoyable experience for all.

## Ropes for use with inflatables

Whenever a rope is used, it is important to adhere to the guidelines set forth by EN14960, which specify an anchor system requirement of 167kg per anchor point.

To meet this requirement, it is necessary to select a rope with a final strength of 167kg or higher. This ensures that the rope is capable of providing the necessary support and security for the inflatable structure.

Additionally, it is crucial to consider the impact of knots on the breaking strain of the rope. Knots can reduce the strength of the rope by up to 50%, depending on the type of knot used. To err on the side of caution, it is advisable to assume a worst-case scenario and account for a 50% reduction in strength due to knots.

To provide an extra layer of safety, it is recommended to round up the strength requirement from 167kg to 200kg. This additional safety margin helps ensure that the rope can withstand the forces exerted on it and provides added peace of mind.

By following these guidelines and taking into consideration the reduced strength caused by knots, we can ensure that the anchor system is properly secured and capable of withstanding the necessary forces. This attention to detail and commitment to safety is essential in providing a secure and enjoyable experience for users of inflatable structures.

### Calculations

Given that you are likely to tie one knot at each end as a minimum, we would need to multiply the rope by calculating backward by using the chart below for a bowline.

#### **Example 1 - A slide rope with one knot in each end.**

14mm rope = 4,368kn for a bowline knot

4,368 / 50% for knot 1 = 2184kn

2184 / 50% for knot 2 = 1092kn

**The total breaking strain would be 1092kn.**

**This is overkill for a simple rope and we can choose a much smaller one.**

#### **Example 2 - A slide rope with 4 knots in total.**

10mm rope = 2,548kn for a bowline knot

2,548 / 50% for knot 1 = 1274kn

1274 / 50% for knot 2 = 637kn

637 / 50% for knot 3 = 318.50kn

318.50 / 50% for knot 4 = 159.25kn

**The total breaking strain would be 159.25kn.**

**This rope would fall short of the 167kg requirement, let alone with a 200kg safety margin.**

I have included an example working chart below to help you select the correct operational strain of rope.



Example breaking strength chart in KG for various rope types

| Code  | Bowline | Falcon Braids |        | Vulcan | Nylon Braid | Single Braids |        |        |        |         | Leech | VB    | Hollow Core | Dynice |        |
|-------|---------|---------------|--------|--------|-------------|---------------|--------|--------|--------|---------|-------|-------|-------------|--------|--------|
|       | DBPS    | DB62          | DB78   | DBV    | DBNY        | SBC62         | SBC78  | SBC99  | SBCVEC | SBCTECH | LEE   | VBC   | HLS         | 75     | Dux    |
| 1.5mm |         |               |        |        |             | 284           | 360    |        |        |         |       | 77    |             |        |        |
| 2mm   | 109     | 284           | 360    |        |             | 418           | 532    | 432    | 477    | 288     | 109   | 113   |             | 300    |        |
| 2.5mm |         |               |        |        |             | 555           | 704    | 781    |        | 576     | 182   | 154   |             | 470    |        |
| 3mm   | 291     | 418           | 532    | 477    |             | 785           | 997    | 1,200  | 715    | 864     | 218   | 241   |             | 1,000  |        |
| 3.5mm |         |               |        |        |             |               |        |        |        |         | 364   | 309   |             |        |        |
| 4mm   | 400     | 555           | 704    |        |             | 1,154         | 1,465  | 1,758  | 1,788  | 1,730   | 400   | 400   |             | 2,000  |        |
| 4.5mm |         |               |        |        |             |               |        |        |        |         | 527   |       |             |        |        |
| 5mm   | 655     | 785           | 997    | 715    |             | 1,849         | 2,348  | 2,817  | 2,862  | 2,595   | 655   | 600   |             | 3,500  | 4,800  |
| 5.5mm |         |               |        |        |             |               |        |        |        |         | 800   |       |             |        |        |
| 6mm   | 1,019   | 1,154         | 1,465  | 1,788  |             | 2,499         | 3,174  | 3,880  | 3,577  | 3,460   | 1,601 | 873   |             | 4,200  | 6,800  |
| 7mm   | 1,383   | 1,849         | 2,348  | 2,862  |             | 3,113         | 3,954  | 5,000  |        | 4,536   |       |       |             | 5,500  | 7,500  |
| 8mm   | 1,747   | 2,499         | 3,174  | 3,577  |             | 3,986         | 5,061  | 6,665  | 6,081  | 5,616   |       | 1,528 |             | 6,700  | 9,900  |
| 9mm   | 2,256   | 3,113         | 3,954  |        |             | 5,086         | 6,458  | 8,890  | 7,512  | 6,912   |       |       |             |        | 10,900 |
| 10mm  | 2,548   | 3,986         | 5,061  | 6,081  | 2,601       | 6,143         | 7,801  | 11,100 | 10,017 | 9,072   |       | 2,620 | 1,165       | 10,700 | 13,500 |
| 11mm  |         |               |        |        |             | 7,179         | 9,117  | 13,300 | 12,521 | 11,230  |       |       |             |        | 16,600 |
| 12mm  | 3,494   | 5,086         | 6,458  | 7,512  | 3,570       | 7,951         | 10,098 | 14,420 |        | 12,528  |       |       | 1,747       | 16,400 | 18,800 |
| 13mm  |         |               |        |        |             | 9,238         | 11,732 | 15,550 | 15,025 | 13,824  |       |       |             |        | 22,400 |
| 14mm  | 4,368   | 6,143         | 7,801  | 10,017 | 5,108       | 10,111        | 12,842 |        |        |         |       |       | 2,330       | 21,800 | 27,300 |
| 15mm  |         |               |        |        |             | 11,169        | 14,185 |        |        |         |       |       |             |        | 28,800 |
| 16mm  | 5,751   | 7,179         | 9,117  | 12,521 | 6,706       | 12,731        | 16,169 |        |        |         |       |       | 2,910       | 27,400 | 37,200 |
| 18mm  | 6,988   | 9,238         | 11,732 | 15,025 | 8,262       | 15,810        | 20,080 |        |        |         |       |       | 3,495       | 35,000 | 45,100 |
| 20mm  | 8,590   | 11,169        | 14,185 |        | 10,200      | 18,881        | 23,980 |        |        |         |       |       | 4,660       |        |        |
| 22mm  | 10,483  | 12,731        | 16,169 |        |             | 22,496        | 28,520 |        |        |         |       |       | 5,824       |        |        |
| 24mm  | 13,104  | 15,810        | 20,080 |        | 12,342      | 26,683        | 33,888 |        |        |         |       |       | 6,988       |        |        |
| 26mm  | 14,560  |               |        |        | 16,320      |               |        |        |        |         |       |       | 8,153       |        |        |
| 28mm  | 17,472  | 18,881        | 23,980 |        | 19,992      |               |        |        |        |         |       |       | 9,318       |        |        |
| 30mm  | 20,092  | 22,496        | 28,520 |        |             |               |        |        |        |         |       |       |             |        |        |
| 32mm  | 22,131  | 26,683        | 33,888 |        | 23,970      |               |        |        |        |         |       |       |             |        |        |
| 36mm  | 27,955  |               |        |        | 26,520      |               |        |        |        |         |       |       |             |        |        |
| 40mm  | 34,361  |               |        |        | 35,700      |               |        |        |        |         |       |       |             |        |        |

## Summary.

Please keep in mind that the rope system is of equal importance to selecting the appropriate anchors and sandbags. All calculations provided are specific to bouncy castles and slides and are applicable within the UK's 24mph wind limit.

It is crucial to remember that all ropes must be securely fixed at a 45-degree angle to the slide at all times to ensure maximum strength. This requirement is specified by EN14960, which outlines safety regulations for inflatable play equipment.

Based on our experience, we have found that polypropylene ropes tend to be the most suitable choice for inflatables. These ropes offer the necessary strength and durability required for secure anchoring. You can easily find 12mm polypropylene ropes through various online sources. We recommend visiting the following link for a convenient

search: [https://www.google.com/search?q=12mm+polypropylene+rope&rlz=1C1CHBF\\_enGB1058GB1059&sxsrf=APwXEdeVRGC8q5jpaDxF3rG8M-dEr0FR3Q:1685611625615&source=lnms&tbn=shop&sa=X&ved=2ahUKEwit4rHR4KH\\_AhUyiP0HHRA7A9YQ\\_AUoAXoECAEQAw&biw=1920&bih=929&dpr=1](https://www.google.com/search?q=12mm+polypropylene+rope&rlz=1C1CHBF_enGB1058GB1059&sxsrf=APwXEdeVRGC8q5jpaDxF3rG8M-dEr0FR3Q:1685611625615&source=lnms&tbn=shop&sa=X&ved=2ahUKEwit4rHR4KH_AhUyiP0HHRA7A9YQ_AUoAXoECAEQAw&biw=1920&bih=929&dpr=1)

By utilizing high-quality ropes, properly fixed at the specified angle, you can ensure the stability and safety of your inflatable structures.



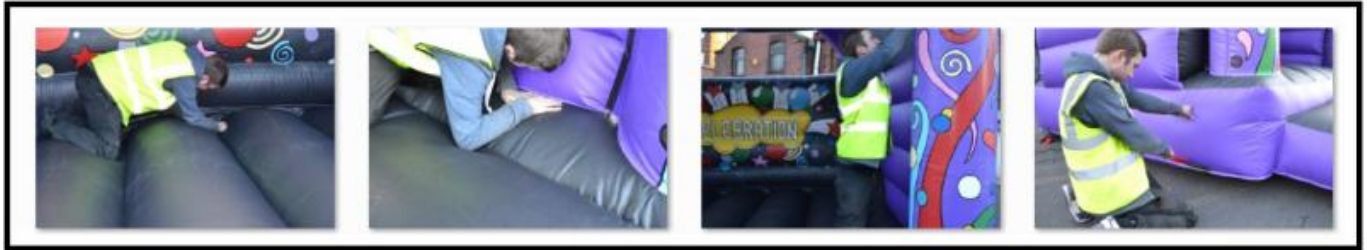


## Testing & Our promise to you.

To comply with the PUWER regulations outlined by the HSE, it is mandatory to have your inflatables tested at suitable intervals by a competent person. The only available test for compliance is the British/European standard EN14960 when it comes to inflatables designed for children under the age of 14, who's primary use is designed for bouncing and sliding.

Although there are many misconceptions about what a competent person is and what test to use, the HSE will not provide any definition. However, the defined test is [compliance with EN14960](#).

Several private companies, such as [RPII](#), [ADIPS](#), [TUV NAFLIC](#), [SIS](#) & [PIPA](#) offer testing schemes, but it should be pointed out that these are not government-run, and the certificates issued are an alternative brand.



At Betterbounce, we have extensive knowledge in designing and manufacturing bouncy castles and inflatables. We promise to offer a full 12-month safety test and compliance certification to EN14960 with our own brand of certificate. If our competency or certificate is disputed, we will handle any correspondence on your behalf. Additionally, our director sits on the current PIPA board. All inspections will come complete with a BetterBounce Inspection and Safety Assessment Scheme (BISA) certificate.

If required, we can request an ADIPS, SIS, RPII, RPII or PIPA report. However, PIPA and RPII are only qualified to [test inflatables](#) specifically designed for bouncing and sliding, such as bouncy castles, slides, and some basic obstacle courses and some games.

Therefore, Betterbounce is the ideal choice for consistency as we can test all other inflatables.

When choosing an external body, you are paying for a professional opinion that may differ from our views. We would always Favor our own scheme in the absence of information. By choosing the [Betterbounce test regime](#) over any other scheme, you agree to indemnify us from any loss of business, revenue, profits, goodwill, opportunity, or any indirect, special, exemplary, consequential, incidental, or punitive loss or damage whatsoever, even if advised of the possibility of such damages in advance



# Ensuring Safety and Compliance

At Betterbounce, we take the safety of our inflatable products incredibly seriously. We understand that when it comes to fun and entertainment, there can be no compromises on safety standards. In this section, we outline our stringent safety measures and compliance with industry standards.

## Quality Standards and Ongoing Testing:

To guarantee your safety while enjoying our inflatable products, we ensure that all our inflatables and their associated accessories have been rigorously tested and have passed these tests in accordance with the European Standard EN 14960:2019 - Inflatable Play Equipment – Safety Requirements and Test Methods.

## Material Excellence:

We are committed to using only the highest quality materials. These materials are not only non-toxic but also fully comply with the stringent REACH standards. In addition, they are certified as fire retardant, meeting various recognized European standards such as the British BS5438 and BS5867, the German DIN 4102 (B1), the French NF P 92 507 (M2), and even the American NFPA 701. All inflatables are Flame retardant where required under EN14960.

## EN14960 Compliance and Betterbounce BISA Scheme:

Our commitment to safety extends beyond compliance with European standards. In addition to adhering to the European Standard EN 14960:2019 for Inflatable Play Equipment, all our products manufactured at Betterbounce comply with the Betterbounce Inflatable Safety Accreditation (BISA) scheme.

The Betterbounce BISA scheme mirrors the rigorous safety requirements of EN14960, ensuring that our inflatables meet the highest industry safety standards. We believe that safety is non-negotiable, and our BISA accreditation is a testament to this belief.

For more information about the Betterbounce BISA scheme and the comprehensive safety measures it entails, please visit [Betterbounce BISA Scheme](#).

Your safety remains our top priority, and our commitment to the Betterbounce BISA scheme is just one more way we ensure that you can enjoy our products with complete peace of mind.

## Certification for Your Assurance:

Our commitment to safety is underscored by our certification. This certificate is issued in strict accordance with the HSE Provision and Use of Work Equipment Regulations 1998 (PUWER) requirements, which necessitate annual testing by a competent person.

## Tailored Safety Measures:

While not every inflatable may fall precisely under the scope of EN14960, we take it upon ourselves to ensure that they conform to standards we have deemed appropriate for your safety. We encourage you to refer to our terms and conditions of sale for comprehensive details and additional information before using any of our inflatables.

## Your Safety, Our Priority:

At Betterbounce, safety isn't just a standard; it's our commitment. From design to regular assessments, we prioritize your safety in every aspect of our inflatable products. If you require further details on our safety measures or have any questions, please do not hesitate to get in touch. Your safety is paramount to us, and we remain dedicated to upholding the highest industry safety standards for your peace of mind.

# Daily Inflatable Safety Checks and Regulations

Daily safety checks for inflatables are critical to ensure the safety of users and compliance with regulations. Here's an extensive checklist that includes additional items and references to relevant safety regulations:

## 1. Site Assessment:

- Confirm that the designated site is free from hazards like overhead wires, trees, or obstructions.
- Ensure there is ample clear space around the inflatable.
- Comply with local zoning regulations regarding inflatable placement and safety distances.

## 2. Anchorage Inspection:

- Verify that all anchor points are securely in place, preventing any movement during use.
- Ensure anchorages comply with safety standards such as EN14960 and local regulations.

## 3. Landing/Crash Mats (if needed):

- Ensure landing or crash mats, if required, are correctly positioned for a safe landing area.
- Verify that mats meet safety standards like EN 1177 (Impact Attenuating Playground Surfacing).

## 4. Fabric and Seams:

- Examine the inflatable's fabric and seams for any significant rips, tears, or holes.
- Pay special attention to seams for structural integrity.
- Check that the inflatable complies with relevant standards for fabric strength and durability.

## 5. Internal Pressure:

- Check that the inflatable maintains the correct internal pressure for safe use, which falls in the range of 1kpa to 2kpa. This can be done by using a maximum inflation device that peaks at this pressure or by using a device with an inflatable pressure gauge. This rule also applies to fully sealed inflatables

## 6. Fan Compatibility:

- Confirm the fan used is the correct one for the specific inflatable.
- Ensure the fan is in good working condition.
- Comply with electrical safety regulations for fan operation.

## 7. Blow Tube Inspection:

- Verify that the blow tube is securely connected to the inflatable.
- Ensure the blow tube is fully extended without any twists or bends obstructing airflow.

## 8. Electrical Components:

- Inspect the inflatable for any exposed electrical parts or wires.
- Check switches, plugs, and sockets for damage and proper function.
- Comply with electrical safety regulations for inflatable equipment.

## 9. Cable Safety:

- Ensure all electrical cables are routed to minimize damage or tripping hazards.

- Keep cables out of harm's way.
- Follow electrical code regulations for cable management.

#### **10. Mesh Guards:**

- Check that any mesh guards are intact and effectively prevent user contact with moving parts.
- Ensure compliance with safety standards for mesh guards.

#### **11. Petrol-Powered Inflatables:**

- If applicable, ensure the petrol cap is securely closed.
- Store the petrol can in its designated area, out of sight of users.
- Comply with regulations for fuel storage and handling.

#### **12. General Inspection:**

- Perform a visual inspection of the entire inflatable to spot wear, damage, or safety concerns.
- Check for compliance with the manufacturer's guidelines for maintenance.

#### **13. User Safety Briefing:**

- Before allowing users on the inflatable, provide a safety briefing.
- Emphasize safe play guidelines to minimize accidents.
- Adhere to regulations requiring user safety information to be provided.

#### **14. Emergency Procedures:**

- Ensure staff members know emergency procedures and evacuation protocols.
- Assign roles and responsibilities in case of an emergency.
- Comply with local safety regulations for emergency response.

#### **15. Documentation:**

- Keep a record of daily safety checks, including identified issues and actions taken to address them.
- Maintain records as required by regulatory authorities.

#### **16. User Supervision:**

- Assign qualified individuals to supervise inflatable usage at all times.
- Ensure users follow safety guidelines.
- Adhere to regulations regarding supervision of inflatable play.

#### **17. Wind Speed Monitoring:**

- Continuously monitor wind speeds and suspend inflatable use if they exceed safe limits, typically 24 mph (or per local regulations).
- Comply with safety regulations for inflatable operation in windy conditions.

#### **18. Regulatory Compliance:**

- Regularly review and ensure compliance with inflatable safety standards and local regulations.
- Stay updated with any changes in safety requirements and implement them promptly.

## 19. Pre-Hire Checks:

Before each hire, verify the following:

- Check the expiration date of the Portable Appliance Testing (PAT) certificate for electrical equipment.
- Confirm that insurance coverage is up to date and sufficient for the event.
- Validate the annual inspection certificate date for the inflatable equipment.
- Ensure this handbook is available with the product at all times.
- Ensure the inflatable is free from degradation and wear and tear that may lead to injury by performing a mini version of the annual checks above and a visual condition report. If in doubt do not use the inflatable or give us a call for advice.
- Risk assessments and method statements are up to date.

### Annual inspection

An annual safety inspection is a legal requirement in the UK, governed by the Provision and Use of Work Equipment Regulations 1998 (PUWER). At Betterbounce, we prioritize your safety above all else. To ensure the utmost safety of our inflatables, we offer comprehensive safety inspections and tests.

Our team of experts can conduct these inspections at our factory, or for your convenience, we have mobile inspectors who can come to your location. Upon completion of the safety inspection and test, you will receive an official certificate detailing the results. If any repairs or replacements are necessary to maintain the safety of your equipment, we will provide you with expert guidance.

If you prefer to use your own inspector, we fully support your commitment to safety. It's important to note that our dedication to safety extends beyond mere compliance with European standards. All of our inflatable products, proudly manufactured by Betterbounce, adhere to the stringent Betterbounce Inflatable Safety Accreditation (BISA) scheme, which is available at the end of the following link: <https://www.better-bounce.co.uk/pages/health-and-safety#BodyContent>

The Betterbounce BISA scheme is designed to match and even surpass the rigorous safety requirements outlined in EN14960, the European Standard for Inflatable Play Equipment. This means that when you choose Betterbounce, you are opting for inflatables that meet the highest industry safety standards available. Safety is our unwavering priority, and our BISA accreditation underscores our steadfast commitment to ensuring your safety at all times.

### What should be tested Annually?

All inflatables produced by Betterbounce Direct have been [tested before sale](#), and as such, you are covered for the first 12 months under our own brand of testing. After 12 months, you should have your equipment tested by a competent person.

We recommend either bringing your inflatables back to Betterbounce Direct or contacting your local manufacturer or repairer to ensure that you comply with the regulations above.

The tests that should be offered as part of this EN14960 test is as follows:

## **Standard Structural Tests.**

- Trough depths measured for visual supervision
- Seam strength security test ensures the inflatable can carry a minimum load of 167kn
- Stitching measured and tested to ensure safety between 3mm and 8mm
- Anchor point vs. wind loading calculations test to ensure a sufficient number of anchors
- Secondary anchor strength test to ensure it can exceed a Newton load of 167kn or more
- Anchor accessories tested for peg specification, safety, and conformity
- Wall and tower height measured to ensure maximum user height calculations are correct
- Blower tube marking and length tested for maximum safety
- Zip installation and functionality safety test to prevent accidental inflation
- Fabric flame retardancy test and/or certificate compliance check to ensure FR status
- Fabric strength test and/or certificate compliance check to ensure it meets EU standards
- Step and ramp size and maximum fall height compliance check to ensure it meets EU standards
- Weight-based grounding test to ensure satisfactory pressure in vulnerable chambers
- Visual and touch inspection for sharp corners and instruments for general user safety
- General stability test (height vs. width and depth ratio) to ensure safety and stability
- Rope test (if ropes are incorporated in the inflatable) to ensure they are not worn or dangerous
- Artwork compliance test to prevent choking hazards from fragments
- Air loss points tested to ensure no defects and that they can maintain pressure
- Water gauge pressure check to ensure correct inflation and safe pressure
- Maximum fall height measurement test to ensure safety
- Thread/cotton inspection test to check for rotting or wear and tear
- Netting measurement test to ensure the hole size is not a danger to small children's fingers
- Entrapment test to ensure there are no areas or toys where a child may become trapped
- Evacuation/deflation test to ensure the unit can maintain good pressure without a fan running
- Window test to ensure materials conform to EN14960 and that no cracks/breaks are present
- Visible markings test to ensure all height/user information and other key areas are identified
- Manufacturer's identification tag and serial number check
- We use the Betterbounce brand of test and do not use the Rpii or Pipa brand.

## **Additional Tests For Totally Enclosed Structure tests.**

- Exit location and proximity test to ensure adequate evacuation is possible
- Exit marking and evacuation check
- Lighting support test to ensure that the structure is free standing and not air supported
- Emergency lighting test if applicable
- Deflation & evacuation test to ensure the unit can maintain good pressure without a fan running
- User area pressure test to ensure it can hold the weight of users it is designed for adequately

## **Additional Tests For Inflatable Slides.**

- Wall height measurement and containment of user compliance check
- Run out measurement and compliance check
- Clamber net measurement and compliance check
- slide sheet measurement and security method check

## **Additional Tests For Blowers.**

- Type & size of blower check again inflatable manufactures specification sheet or tag
- Inlet and outlet mesh check with a probe to ensure finger length distance is safe
- Cable & plug visual inspection and power test to ensure maximum safety
- Pat test document inspection
- Anti, air return flap securely in place and operation test

**Summary:** By consistently performing these daily inflatable safety checks, along with annual safety checks and adhering to relevant regulations, you can maintain a secure environment, prevent accidents, and ensure legal compliance while avoiding disruptions due to expired certifications or inadequate insurance coverage.

## Electrical Equipment Safety

The usage of portable electrical equipment carries inherent risks such as electric shock, burns, or fire hazards. Many accidents occur due to inadequate equipment maintenance. However, these risks can be effectively managed by adhering to sensible and appropriate usage and maintenance protocols.

The electric fan provided with your inflatable should be exclusively connected to the specified electricity supply designated for that fan. It is of utmost importance to never connect the fan to an electricity supply that is not specified, as this practice is extremely perilous and could affect the warranty.

Each fan is equipped with a motor designed to operate at the nominal mains electricity voltage corresponding to the country it was supplied in. In the UK and Europe, this voltage is 220-240 volts at 50Hz A/C. However, fans for alternative electrical supply specifications can be obtained if necessary.

**CAUTION:** To prevent electric shock during fan handling and operation, it is imperative to use a Ground Fault Protected Circuit (GFCI). Prior to using the fan, it is advisable to carefully review the manufacturer's Instruction Manual.

Operating electrical equipment in wet or damp conditions poses significant risks. When using an electrically powered fan outdoors, it is essential to employ an RCD (Residual Current Device) adapter or plug. By redirecting electrical current through the main's earth, it acts as a safeguard against electric shock in the event of an electrical fault. RCDs can be procured from your preferred local electrical store. Typically, the inflatable connects to indoor mains sockets, with the fan cable's plug inserted into the RCD. Alternatively, a plug containing an RCD device can be permanently affixed to the fan cable. Before each use, it is essential to verify that the RCD device is functioning correctly, which can be done using the provided test button. Furthermore, all electrical connections should be adequately shielded to prevent water ingress.

If an extension lead is required, ensure it has the capacity to carry 13 amps. Cables should be positioned to prevent tripping hazards, and if used outdoors, they must have the appropriate IP rating. Moreover, the fan should undergo PAT (Portable Appliance Testing) either before or after every use. Hand-held fans should only be operated by trained personnel and kept out of reach of the public.

**IMPORTANT:** It is essential to recognize that your fan is considered a portable appliance unless it is permanently fixed in place. Therefore, it is mandatory to PAT test the fan after each use. Additionally, extension leads should be regularly inspected and tested. In the UK, PAT testing laws dictate that maintenance should only be carried out by competent persons to ensure compliance with safety standards.

**Risk of Electrocution! Betterbounce recommend that in any event of electrical failure, you always consult a qualified electrician.**



# Inflatable Placement and Positioning

**Positioning Your Inflatable:** Choosing the optimal location for your inflatable necessitates careful consideration of the following factors:

- The designated site should ideally be level or possess a slope of no greater than 5 degrees in any direction.
- Prior to setup, the area must be meticulously cleared of any debris or sharp objects, whether on the surface or embedded within it.
- Always ensure that inflatables have a full 360° clearance radius, preventing any contact with walls, plants, trees, streetlights, or any potential hazards like overhead power lines.
- It is imperative to inspect for any indications of underground utilities, such as signs of excavation, before anchoring the pegs. Industry-standard pegs, measuring 38cm in length, should eliminate the risk of driving them into underground cables or pipes. If the surface is abrasive, the use of a groundsheet beneath the inflatable is essential to safeguard its base.
- It's worth noting that inflatables placed in shaded areas tend to preserve their colours longer, particularly for printed panels.
- If your inflatable is intended for placement on hard surfaces, please refer to the instructions on hard surfaces from EN14960 ANCHORAGE

**Positioning of Perimeter Fencing:** When utilizing a perimeter fence for crowd control purposes, specific guidelines must be followed.

The fence should maintain a minimum distance of 1.8m from walled sides and at least 3.5m from open sides. Furthermore, the gateway must have a minimum width of 1.0m.

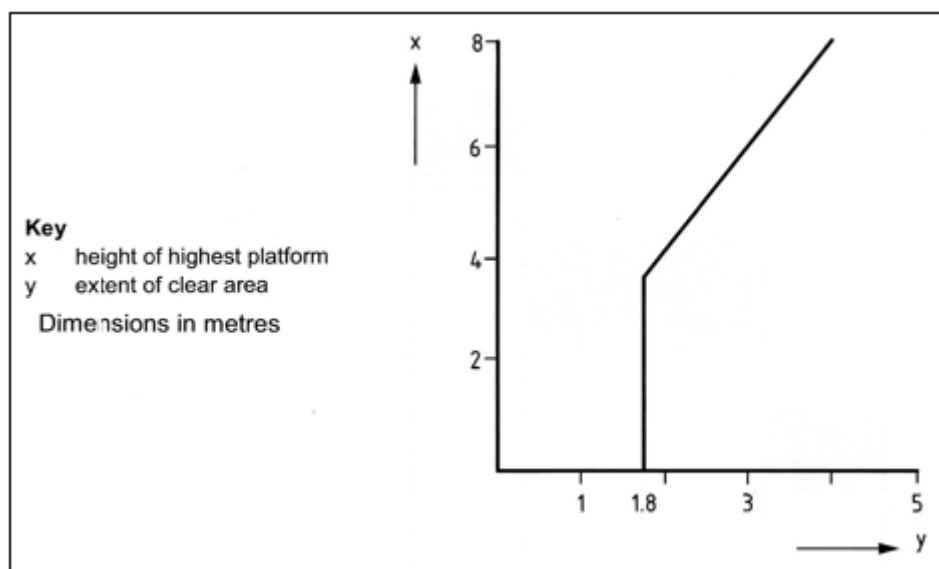


Fig 1 (Extract from EN14960)



**Maintaining a Clear Area Around the Inflatable:** A designated clear area around the inflatable is mandatory for safety reasons.

The dimensions of this clearance zone are determined by dividing the height of the tallest platform by 2. However, the clear area should never be less than 1.8m. This is known as the impact area

An exception to this rule applies when an inflatable with inflated walls is positioned directly against a solid wall or walls, such as the walls of a building. In such cases, the solid wall(s) must exceed the highest platform height by 2 meters.

Nonetheless, the utilization of this exception should not introduce additional hazards into the setup.

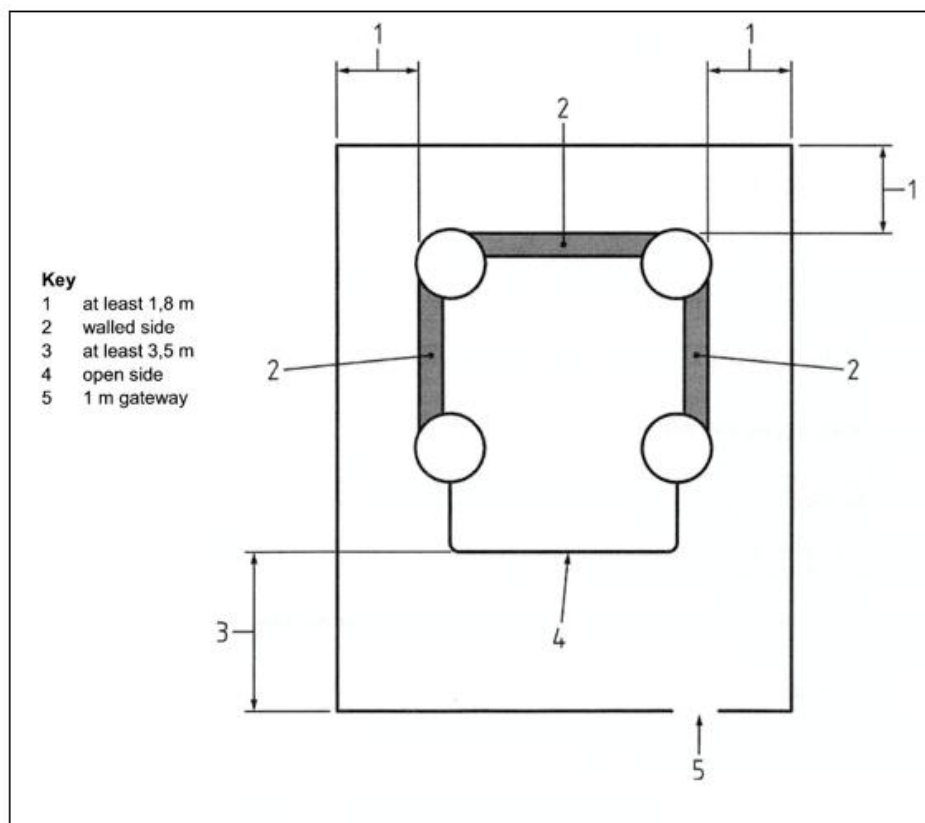


Fig 1 (Extract from EN14960)

# Anchoring Your Inflatable Safely

Proper anchorage is essential for the safe operation of inflatables, ensuring they remain securely in place during use. Here's a comprehensive guide on how to anchor your inflatable safely:

## 1. Anchor Pegs and Their Specifications:

- Each anchor peg used must have the capacity to withstand a pulling force of at least 167kg (1600N). This is a crucial safety requirement.
- Not all types of ground are suitable for anchorage. Suitable ground types include grass and hard ground.
- Ground types like sand, gravel, previously loosened soil, or anything unable to hold the required 167kg pulling force are not suitable for anchoring.

## 2. Low-Level Anchor Points:

Low-level anchor points can be utilized in two ways:

- Pegging to the ground without using a rope.
- Tying them to the peg with a rope.

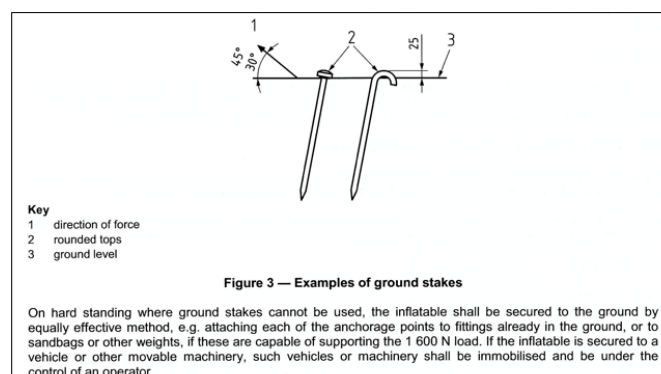
## 3. High-Level Anchor Points:

- The ropes or webbings of high-level anchor points should be gently curved to allow for reasonable movement of the inflatable during use.
- Anchor pegs for high-level points should protrude no more than 25mm above the ground surface.
- When anchoring in the impact area, ensure that the pegs are positioned as close as possible to the base of the inflatable.
- Cover the pegs with soft matting, at least 25mm thick but not exceeding 125mm, extending a minimum of 1.2m from the open side. For indoor use, safety mats should be fire-resistant.
- If anchor points are placed near an entrance or exit, they should be connected in a way that minimizes the risk of tripping, abrasion, or other injuries.

## 4. Positioning of High-Level Anchor Points:

- To secure high-level anchor points properly, position the pegs so that the ropes or webbings go upwards at an angle ranging between 30 and 45 degrees.
- The angle can be adjusted by moving the peg closer to or farther away from the inflatable.

By following these guidelines for anchoring your inflatable equipment, you can ensure not only the safety of the users but also the longevity and stability of your inflatable. Proper anchorage is a fundamental aspect of inflatable operation that should never be overlooked.



**Fig 1 (Extract from EN14960)**

**Temporary Anchoring and Inflation Process in detail:** Ensuring the safety and stability of your inflatable during its initial inflation is crucial. Here's a straightforward guide:

### **1. Secure the Windward Side:**

Identify the windward side of the inflatable that needs temporary anchoring during the first inflation.

Drive anchor pegs into the ground on this side. Use standard-sized pegs (16mmØ x 38cm). Loosely tie ropes to the anchor points on the windward side.

### **2. Temporary Anchoring on Hard Surfaces:**

If you're on a hard surface where ground pegs won't work, secure each anchor point to a stable object capable of withstanding 167kg of force.

Suitable options include weights, sandbags, immobilized vehicles, or existing fittings in the ground.

### **3. Inflate and Position:**

Keep bystanders at a safe distance.

Switch on the fan and allow the inflatable to fully inflate.

Keep an eye on the temporary anchorages to ensure they're properly positioned and not overly tight. If they become too taut, turn off the fan and adjust as needed.

While the inflatable inflates, gently move it to its desired position using the anchors.

**CAUTION:** Do not stand or sit on the inflatable during inflation, as it may move unexpectedly. Everyone should stay clear until the inflatable is fully inflated and securely anchored.

### **4. Final Adjustments and Permanent Anchoring:**

After full inflation, make any necessary adjustments to the inflatable's position with the help of assistants.

Loosen the ropes connected to the anchor points before making adjustments. Then, re-adjust or re-tie the ropes as required.

Ensure you have enough assistance to avoid injury while moving the inflatable.

If you need to move the inflated inflatable, either move the fan with it or turn off the fan (for petrol fans, stop the engine).

Once the inflatable is in its final position, securely anchor all anchor points.

By following these simplified steps, you'll ensure a safe and secure setup for your inflatable equipment, both during its initial inflation and in its final position. Proper anchoring is vital for user safety and the inflatable's durability.

## **Repairs to Betterbounce Inflatables**

Prior to initiating any substantial repair work, we kindly urge you to contact us for consultation, as extensive repairs have the potential to influence your warranty coverage.

For a comprehensive overview of our warranty terms and conditions, please refer to our Terms and Conditions page which can be found at the end of the following link: <https://www.better-bounce.co.uk/pages/terms-and-conditions#BodyContent>.

Additionally, you can find more information on our Repairs and Testing page which can be found at the end of the following link: <https://www.better-bounce.co.uk/pages/testing#BodyContent> to ensure that your inflatable equipment receives the care it deserves.

**Never ever attempt to carry out a repair yourself without proper training.**

# Safety Floor Mats for Hard Surfaces

When setting up inflatables on hard surfaces, it's essential to prioritize safety by using landing/crash mats. These mats should possess adequate impact attenuation properties, ensuring safety in case of a fall from a height of at least 630 mm (in accordance with EN 1177 standards). To cover the impact area, provide mats with a minimum width of 1.2m. For determining the exact impact area, please refer to the "Inflatable Placement and Positioning" guidelines.

**Indoor Use:** For indoor setups, only fire-resistant safety floor mats should be employed to enhance safety standards.

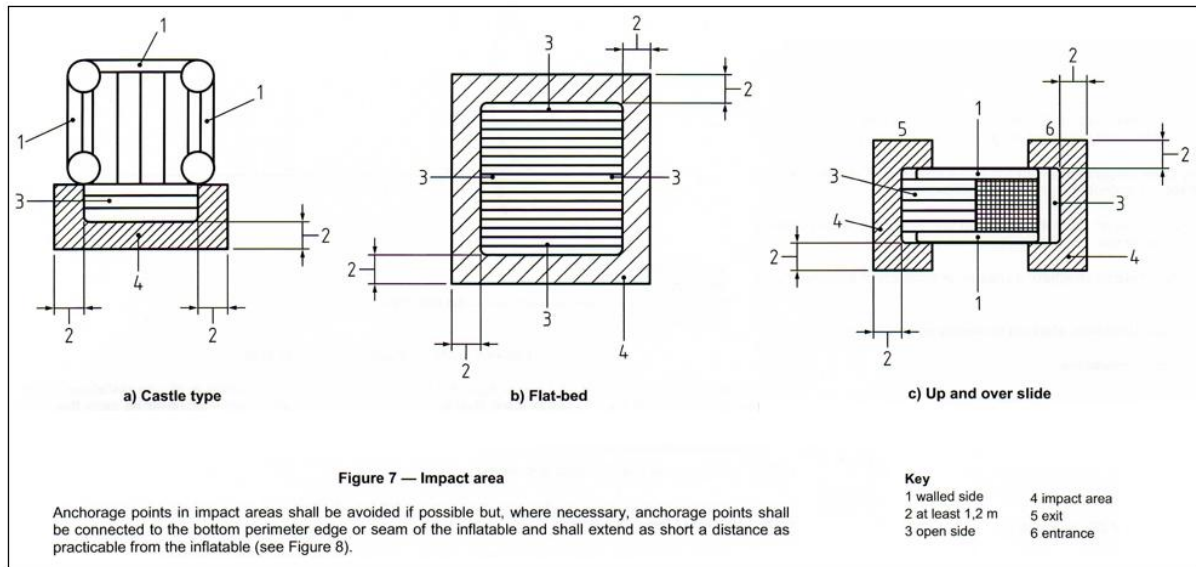


Fig 1 (Extract from EN14960)

Betterbounce offers a selection of high-quality safety floor mats that meet these specifications. You can explore our range of mats by following this link: <https://www.better-bounce.co.uk/search.aspx?q=mats#BodyContent>

## Technical Specifications:

- Heavy-duty 610gsm PVC material
- 20 Gauge rot-proof nylon thread for durability
- 2" thick top-quality foam, machine-cut for precision
- Approximate size (Length/Width/Height): 3ft x 5ft x 2" Thick
- Approximate weight: 15kg
- Available in packs of 100 single mats
- Customizable in various colours
- Can be printed with your branding or safety instructions (additional cost applies)

These mats are ideal for bouncy castles and inflatables, serving as padded entrances or exits for your customers. They are engineered to provide impact resistance suitable for a 1,000mm fall height at 2" thickness, meeting the requirements for maximum fall heights of 630mm in bouncy castles.

Our mats are constructed from high-grade materials, the same as those used in full-scale manufacturing. They are UV-stable, ensuring they won't fade, and the 610gsm material provides exceptional strength. An anti-fungicidal treatment keeps them fresh and easy to clean. The mats are sewn externally for added durability, and they are produced in batches of 200 to optimize costs while maintaining top-notch quality. We do not compromise on materials, ensuring your inflatables are set up with the highest safety standards in mind.

# Emergency Evacuation and Exit Procedures

Ensuring the safety of individuals using inflatable equipment is of paramount importance. In accordance with safety guidelines and standards, any inflatable over a certain size, typically specified by local regulations or safety standards, must be equipped with an emergency exit located within 4 meters of any point inside the inflatable. This exit is crucial for facilitating a quick and safe evacuation in case of an emergency.

## Types of Emergency Exits:

- **Zipper Openings:** Some inflatables are designed with zipper openings that can serve as emergency exits. These zippers should be easily accessible and operational from the inside.
- **Velcro Flaps:** Velcro flaps can also function as emergency exits. Like zippers, they must be easily reachable and simple to unfasten from the inside.
- **Physical Openings:** In some cases, inflatables may feature designated physical openings or doors that can be used as emergency exits. These openings should be clearly marked and should open easily to allow for a swift exit.

## Responsibilities of Venue Owners/Operators:

For inflatable setups in permanent venues, such as indoor play centres or event spaces, the owner/operator bears the responsibility for ensuring that the inflatable complies with all safety regulations, including the provision of adequate emergency exits. Regular inspections and maintenance of these exits are also crucial to guarantee they function correctly when needed.

## Compliance with EN14960 Standards:

It's important to note that European Standard EN14960, which addresses the safety requirements and test methods for inflatable play equipment, includes provisions for evacuation and emergency procedures. Therefore, all inflatables manufactured under this standard should adhere to the guidelines for emergency exits.

In conclusion, the presence and proper functioning of emergency exits in inflatables are critical to ensuring the safety of users. These exits should be easily accessible, well-maintained, and in compliance with local regulations and relevant safety standards. For permanent venues, the owner/operator should take proactive measures to uphold these safety requirements.

## Supervision:

Each inflatable must be supervised inline with EN14960 & the following HSE documentation.

- HSG175: <https://www.hse.gov.uk/pubns/books/hsg175.htm>
- ETIS07: <https://www.hse.gov.uk/search/search-results.htm?query=ETIS07#gsc.tab=0&gsc.q=ETIS07&gsc.page=1>

## Inflatable Slides - Specific Operating Instructions

These instructions are item specific extras and must be read in conjunction with the Land based, Constant airflow Equipment Operation Manual (User Manual). This must not be used as a standalone user manual. Please stop now if you do not have all manuals relating to your equipment & Accessories.



Images for illustration purposes only. All Slide colours & styles of slides may vary.

**User Capacity Control:** It's vital to strictly adhere to the specified number of users for the inflatable slide. Overcrowding the slide can pose significant safety risks. Ensuring that the number of users matches the manufacturer's recommendations is essential for safe operation.

### Prohibited Rough Play:

To maintain a safe environment, rough play is strictly prohibited. This includes any boisterous behaviour such as intentionally pushing others off the inflatable or attempting to dislodge fellow users. Such actions can endanger both the individuals involved and others nearby. In the event of any misconduct, offenders should be promptly warned.

### Correct Sliding Position:

Users must adopt the correct sliding position when using the inflatable slide to ensure their safety. This entails crossing their arms at the front and sliding down the centre of the slide without touching the walls. Sliding must always occur feet-first; users must not be allowed to go down head-first, as this can lead to severe injuries. Supervisors are responsible for instructing users on the correct sliding position, and it is advisable to have clear signage illustrating the proper technique.

### Appropriate Clothing:

For safety reasons, all users must wear full clothing when sliding down the inflatable. Exposed skin can be prone to abrasions, so it's essential to avoid this by ensuring users are adequately dressed. Providing spare long-sleeved clothing and leggings for users is a recommended practice.

### No Jumping, Sit to Launch:

Jumping or attempting to launch themselves in a standing position is strictly prohibited. Users should always sit down before initiating their slide. This ensures a safer experience for all participants.

### One Person per Lane:

Only one person should slide down a lane at any given time. Climbing the walls or trying to jump over sections of the slide is not allowed. To maintain safety, it's advisable to have at least two supervisors present at all times.

### **Maintain a Clear Run-Out Area:**

Ensure that the run-out area at the bottom of the slide is kept clear at all times. Users should not start their slide until the previous user has safely left this area, typically marked in red for visibility.

### **Avoid Intersecting Paths:**

In the case of inflatable slides with multiple lanes and no separating wall, users should slide in a straight path without intersecting with other users' sliding paths. This prevents collisions and ensures a smooth and safe sliding experience.

### **No Sliding in the Lap of Others:**

Users must not slide in the lap of others. Maintain proper spacing between users to prevent collisions and maintain safety.

### **Removal of Netted Handrails:**

It is advisable to remove netted handrails from the inflatable slide, as they are not preferred by regulatory bodies like PIPA due to potential safety concerns.

By following these guidelines and prioritizing safety, the operation of inflatable slides can be an enjoyable and secure experience for all participants.

## **Inflatable Waterslides - Specific Operating Instructions**

These instructions are item specific extras and must be read in conjunction with the Land based, Constant airflow Equipment Operation Manual (User Manual). This must not be used as a standalone user manual. Please stop now if you do not have all manuals relating to your equipment & Accessories.



Images for illustration purposes only. All Waterslide colours & styles of slides may vary.

### **Minimum Operational Requirements**

A minimum of two suitably competent and dedicated operators must supervise the inflatable water slide at all times and all operators must have a working understanding of inflatable safety, the EN14960 standard, and the PIPA Guidance Note on Water Slides available on the PIPA website at <https://www.pipa.org.uk/>

### **Operator Duties**

#### **Operator 1 – Bottom of the Slide (Splash Pool Supervisor)**

This operator must be positioned at the base of the slide, beside the splash pool, and must supervise users at all times. This operators' responsibilities include:

- Ensuring safe and prompt exit from the splash pool after sliding.
- Preventing play or loitering in the splash pool while the slide is in operation.



- Monitoring for any signs of distress, injury, or water-related hazards (e.g., slipping, submersion, etc.).
- Assisting users out of the splash pool quickly and safely.

## **Operator 2 – Top of the Slide (Slide Entry Supervisor)**

This operator must be must be stationed at the top platform of the slide, directly managing the flow of users. This operators' responsibilities include:

- Ensuring only one user slides at a time.
- Confirming that the splash pool is completely clear before allowing the next user to descend.
- Providing basic instructions to users about safe sliding posture and behaviour.
- Preventing overcrowding on the top platform.

## **Use & Flow Rates**

The Maximum permitted water flow of our inflatable slides is 20.65 litres per minute (*Typically achievable using a standard UK household tap and a 15mm diameter, 10-metre garden hose.*)

Water should be clean, free from debris, and directed only at the sliding surface and if using a water recirculation pump, ensure the following:

- The pump does not exceed the maximum flow rate of 20.65 L/min.
- The pump is located outside the splash pool area and is not accessible to users.
- All pumps and electrical components have been PAT tested and tested to the specifications outlined by the pump manufacturer by a suitably competent person.
- All electrical connections are RCD-protected and suitable for outdoor use.

## **Safety Equipment**

- **EN1177-compliant crash mats** must be placed under the splash pool wit sufficient overlap to prevent injury. Mats should also be used at the entry and exit points of the splash pool and any surrounding hard surfaces inline with enq4960.
- Mats must be secured, free of trip hazards, and positioned to allow safe entry and exit.

## **User Rules & Safety Procedures**

- Supervision by a competent adult is required at all times during operation.
- Users must immediately exit the splash pool after sliding, using the closest safe route to the side.
- No users are allowed to remain, loiter, or play in the splash pool while the slide is in operation.
- Only one person is permitted to slide at a time.
- The splash pool must be clear before the next user begins to slide.
- Users must slide in the correct seated or feet-first position unless otherwise stated in the manufacturer's instructions.
- The slide must not be used if visibility or supervision is impaired for any reason (e.g., poor weather, large crowds, low staffing).
- The water slide must not be used in wind speeds exceeding the limits specified for the inflatable under EN14960.
- Operators must ensure that all hoses are positioned in a way not to cause strangulation or choking and must not be accessible to the user.

## **Important Notes**

- Betterbounce Inflatable water slides must not be operated unless all supervisors are fully trained and briefed.
- Please ensure you as the owner, Review and comply with all manufacturer instructions, Betterbounce guidance, EN14960, HSG175, and PIPA's Water Slide Guidance Note before setup and operation.
- Any deviation from the outlined safety procedures can lead to serious injury or void insurance or warranty cover.

## **Inflatable Obstacle Courses - Specific Operating Instructions**

These instructions are item specific extras and must be read in conjunction with the Land based, Constant airflow Equipment Operation Manual (User Manual). This must not be used as a standalone user manual. Please stop now if you do not have all manuals relating to your equipment & Accessories.

The inflatable obstacle course offers an exciting challenge with two distinct modes of use: Competition Running and General Play Running. Here, we delve into the rules and precautions to ensure a safe and enjoyable experience for all users.



Images for illustration purposes only. All Obstacle course colours & styles of slides may vary.

### **Competition Running:**

Competition Running is an exhilarating competition where users aim to conquer the course's challenges as swiftly as possible. Typically, this mode involves a head-to-head race against another user or forms part of a larger race event. Here's how it works:

### **Staggered Start:**

In Competition Running, Two players commence the course with a staggered start. Two players initiate the race, and as they progress halfway through the unit, another two participants may begin, contingent on the players' speed.

### **General Play Running:**

In General Play Running, the obstacle course transforms into a space for casual fun and enjoyment. This mode accommodates a significantly higher number of users and encourages imaginative play.

### **Supervision of Obstacle Courses:**

Effective supervision is essential to ensure the safety of users in both Competition Running and General Play Running modes. Here's how it should be managed:

## Competition Running Supervision:

In this mode, an attendant should position themselves at the entrance of the inflatable obstacle course, while the operator stands at the halfway point of the course. As soon as the initial two competing players surpass the halfway mark (the operator's position), the operator signals to the attendant. The attendant, in turn, allows another two players to start the race. This synchronized supervision helps maintain a fair and safe race environment.

## Safety Considerations:

Please be aware that not all inflatable obstacle course units are suitable for competition running. Certain elements, such as challenging obstacles, should not be included in a full competition mode event due to the inherent risk of injury. Safety should always be the top priority when planning activities.

## Training and Competent Supervision:

To ensure the safe operation of inflatable obstacle courses, we strongly recommend that operators, attendants, and anyone responsible for overseeing these units undergo proper training. PIPA (Professional Inflatable Play Association) offers a valuable training program for supervisors and attendants of inflatable play equipment. Competent supervision is crucial at all times to mitigate risks and ensure a secure environment for users.

## Suitability of units:

Please ensure that all extension pieces are carefully thought out and planned when erecting prior to use. Not all obstacle sections can be placed together, and some will need stability from more solid units to achieve compliance above the 1kpa requirement.

Please also ensure that all 90 degree sections and 45 degree sections are not situated next to the inflatable slide or cliff jump sections due to the sides bowing out and causing alignment issues.

## Constant Airflow Pool Inflatables - Specific Operating Instructions

These instructions are item specific extras and must be read in conjunction with the Land based, Constant airflow Equipment Operation Manual (User Manual). This must not be used as a standalone user manual. Please stop now if you do not have all manuals relating to your equipment & Accessories.

The inflatable obstacle course offers an exciting challenge with two distinct modes of use: Competition Running and General Play Running. Here, we delve into the rules and precautions to ensure a safe and enjoyable experience for all users.



Images for illustration purposes only. Pool Inflatable colours & styles may vary.

**Disclaimer:** Betterbounce reserves the right to change the content of this manual without prior notice to the customer. All pictures and drawings are for illustration purposes only. Nothing in this manual is to be construed in any way as varying the terms of sale of the goods to which it

applies. Reasonable care has been taken when preparing contents of this manual. However, Betterbounce accepts no responsibility for any error or omission or misuse.

## **Introduction**

Any misuse or failure to adhere to the instructions and recommendations contained in this manual and any additional instructions will render void the warranty.

Constant flow inflatables are constructed with machine-stitched seams and rely on a continuous electric fan to maintain air pressure while in use. This fan connects to the inflatable through a long flexible pipe ensuring the blower is positioned away from the poolside.

Water-based pool inflatables are typically designed to be anchored at the pool's edge, spanning from the shallow end to the deep end. Depending on the placement and site management, a drop mat might be needed at the starting point and they must only be used in indoor pools and never in open water locations.

Since the structure is held together by stitched seams, air will continuously escape through the numerous perforations created during stitching. To maintain proper inflation, air must be supplied continuously under pressure. This is known as the "continuous flow" principle.

Constant flow inflatables are generally equipped with an electrically powered high-pressure fan. Over time, the perforations may gradually increase in size. The 1.5hp fan we recommend compensates for the increased air loss due to aging and can also handle small rips up to 5 cm.

## **The following items may be required to operate your pool inflatable indoors:**

- 1.5hp blower minimum (Please take precautions during the handling and use of the fan to prevent electric shock. The fan should be operated on a ground fault protected circuit and secured in such a location that makes it impossible to come into contact with the pool. )
- Flexible hosing
- Hose clips/ clamps
- Blower to Hose PVC Adaption
- Anchor ropes
- Bungee shock absorbers
- Pool drop mat

## **Training and responsibilities**

At BetterBounce, we are committed to providing high-quality inflatables for sale, prioritizing safety as a top concern. While we supply the inflatables, it is the responsibility of the centre operations Manager to ensure that their staff receive adequate training and qualifications to oversee the setup, maintenance, and operation of the inflatables.

Centres or operators are accountable for ensuring that each attendant receives comprehensive training in all aspects of inflatable management, including setting up, conducting daily checks, dismantling, packing, cleaning, maintenance, supervision, and operation. They should also ensure that their staff are knowledgeable about relevant guidance notes and codes of practice, as outlined by the Health and Safety Executive (HSE).

In accordance with HSE guidelines, centres must ensure adequate supervision at all times. They should determine the appropriate staffing levels based on factors such as the size of the inflatable unit, the age range, responsible behaviour, and swimming abilities of the players.

For aquarium-type inflatables, centres should ensure a minimum of two suitably trained and qualified attendants. One attendant should control access onto the unit at the start of the course, while another is responsible for the safety of players on the inflatable until they exit. This

staffing requirement should be assessed by the centre and adjusted based on site layout, pool size, and other operational considerations.

Given the limited visibility beneath the inflatable, centres must ensure that staff remain vigilant for signs of distress from players in obscured areas of the pool. Attendants should be prepared to enter the pool if necessary, and consideration should be given to the use of purpose-built underwater surveillance equipment.

Our inflatables are designed with safety in mind, and we encourage centres to maintain a clear perimeter around the inflatable, except during designated usage sessions. This approach ensures the safety and enjoyment of all participants while minimizing the risk of accidents or injuries.

In the event of an electrical supply failure or the need to turn off the fan, immediate cessation of inflatable use is mandatory. The inflatable must be promptly cleared of all players to mitigate any potential risks.

While well-managed swimming pools strive to prevent accidents, staff should be prepared to handle emergencies efficiently. Established procedures must be followed, and appropriate actions taken promptly. After the situation has been brought under control, a comprehensive report should be prepared.

Recognizing the importance of preparedness in water emergencies, BetterBounce emphasizes the significance of conducting suitable risk assessments. It is advised that all attendants, lifeguards, and operators undergo professional water rescue and first aid training to effectively manage any unforeseen incidents.

The appropriate number of trained and qualified staff should be present to supervise the session effectively.

Determining the required number of attendants for a pool inflatable session depends on various factors and requires the judgment of the owner or operator. It is the responsibility of the owner or operator to assess the circumstances and determine the minimum number of staff required to operate and supervise the inflatable, ensuring safety is maintained at all times.

## **Bungee run and Bungee Inclusive products - Specific Operating Instructions**

**These instructions are item specific extras and must be read in conjunction with the Land based, Constant airflow Equipment Operation Manual (User Manual). This must not be used as a standalone user manual. Please stop now if you do not have all manuals relating to your equipment & Accessories.**



Images for illustration purposes only. All Bungee runs colours & styles of slides may vary.

### **Supervision Requirements**

A dedicated and suitably competent supervisor must be in place at all times during use. No participants may enter the inflatable without a supervisor present.

The Supervisors must have a full understanding of:

- BS EN14960

- BS EN14960: Part 4
- PIPA's Bungee Run Guidance Notes
- This entire user manual document

During use, the supervisor must:

- Aid users with harness fitting and correct attachment to the bungee cords
- Control the number of users (strictly 2 maximum — one per lane)
- Ensure correct cord selection based on user weight
- Visually confirm the harness and all connections are secure prior to each run
- Ensure no users are able to access the rear of the inflatable
- Ensure no users can access or taper with any Bungee connections or accessories

## Maximum Users & Weight Limits

The following restrictions must be adhered to at all times:

- Maximum of 2 users at one time, one per lane only.
- Users under 61kg must use 1 bungee cord
- Users over 60kg to 120kg must use 2 bungee cords
- Users over 120kg are not permitted to use the bungee run
- Minimum user height is 1.2 meters

## Equipment Standards & Safety Features

All bungee cords must adhere to the following specification:

- Minimum diameter: **13mm**
- Must be **sleeved or jacketed** for safety
- Shock cords must be free from damage, wear, or discolouration
- Must include a **breakaway failsafe** using a **1" webbing loop**

## Connectors & Clips

All Connectors & Clips must adhere to the following specification:

- Use only 2400n+ rated Screw gate carabiners with 2-stage locking
- All connectors must be in good working condition and securely fitted
- All connections must be able to withstand 2400 N at all times during operation

Rear connection bar must be slid through the bungee loop and fitted inside the zipped locations. Once secured, the zipped locators must be hidden from view using the Velcro patches provided.

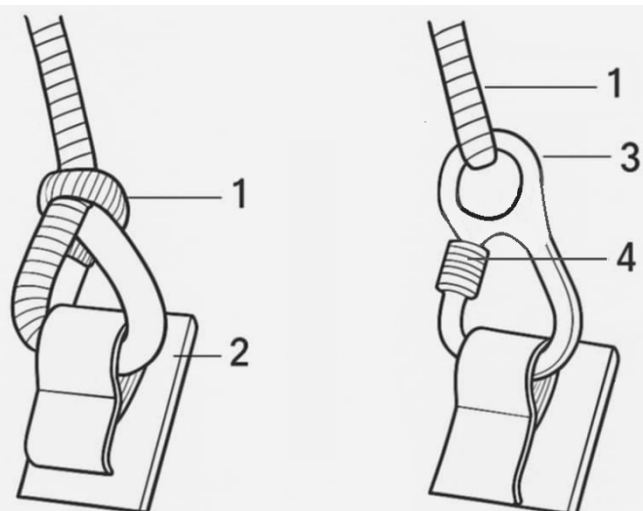
## Harness requirements

All Harnesses must adhere to the following specification:

- Must include a permanent cord fitting point
- Must include a backup emergency breakaway cord
- Must include 2 holding methods such as Velcro & buckle.
- Harnesses must be a minimum of 20 cm wide to ensure load distribution and reduce injury risk
- Supervisor must check fit and locking before every use

### Key

1. Bungee Shock Cord
2. Fitting point on Bungee Harness
3. Carabiner
4. 2 Stage Locking device



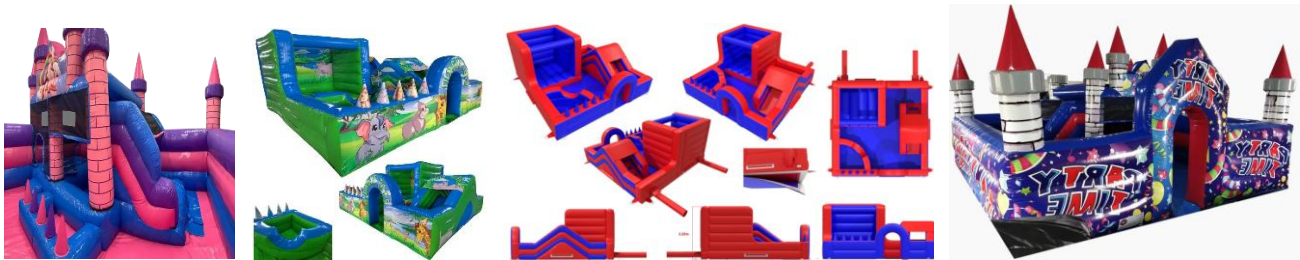


## Inflatable Toddler Playzone - Specific Operating Instructions

These instructions are item specific extras and must be read in conjunction with the Land based, Constant airflow Equipment Operation Manual (User Manual). This must not be used as a standalone user manual. Please stop now if you do not have all manuals relating to your equipment & Accessories.

Your Toddler Play Zone is designed with safety, fun, and early development in mind. Please take a few minutes to read this guide carefully before use.

The operation of an inflatable Playzone requires a minimum of two dedicated operators who stands in such a position that allows for maximum sightlines and 100% inflatable coverage. These operators serve several crucial roles, including granting access to the inflatable and ensuring the safety of users by providing instructions and guidance.



### Important Safety Warning:

Do not use the play zone until you have fully read and understood this guide.

All equipment must be supervised at all times by a responsible adult.

Never leave toddlers unattended, even for a moment.

Always place mating fully underneath key impact areas such as climbs, ball pool based and slide runoffs

### Who This Is For:

This play zone is designed for toddlers aged 1 to 3 years old. At this age, children are still developing balance, coordination, speech, and social interaction. Always take care when introducing your child to a new activity.

### Supervision:

Constant adult supervision is essential.

Parents or carers should always be within sight and reach.

Ensure there are clear sight lines to all areas of the play zone, especially if multiple features are included.

### Safe Access and Exit:

Only allow entry through designated access points.

Steps and walkways must be easy to use by both toddlers and supervising adults.

Areas connecting different sections are built for safety. Please ensure they are used properly and not blocked.

Impact-absorbing surfaces are provided for climbing and sliding features.

### User Movement & Flow:

Encourage children to move in one direction through the play area to prevent collisions.

Avoid letting children cross through slide run-offs or ball ponds to access other areas.

Always check for and remove any obstructions or hazards.

## **Play Features – What You Need to Know**

### **Bouncing area specific notes:**

- Supervised bouncing is allowed only in designated spaces.
- Ensure no head contact with the roof if fitted.

### **Slide specific notes:**

- Slides are gentle and designed for toddlers.
- Slide mats may be provided—ensure they are securely in place.
- Platforms are low and safe, but children should always be helped up and down.
- All slide run off areas (Defined as 60% of the slides platform height) have matting conforming to EN1177 paced underneath the area impact zone and extend 500mm beyond the zone or to the nearest applicable wall.

### **Climbs & steps specific notes:**

- Features are designed for small legs and growing confidence and as such all handholes must be always supervised for entrapment.
- All climbs must have matting conforming to EN1177 paced underneath the climb area impact zone and extend 500mm beyond the zone or to the nearest applicable wall.

### **Ball pool specific notes:**

- Maximum ball depth: 45 cm.
- Ball size must be at least 60 mm in diameter.
- Do not use ball pits to transition between features or as a walkway.
- Remove any broken or damaged balls.
- Ensure the ball pit is always clean and the base is soft and secured.
- All Ball pools must have matting conforming to EN1177 paced underneath the ball pool and extend 500mm beyond the zone or to the nearest applicable wall.

### **Interactive toy specific notes:**

- Some play zones include soft, sensory features (spinners, rings, shapes).
- These are safe for gentle interaction—avoid rough play or forceful handling.
- All elements are securely fixed to prevent entrapment.

### **Ground and entrapment Safety:**

- Fully fitted ground sheets help prevent toddlers from crawling underneath equipment.
- If any part of the inflatable lacks a fitted ground sheet, make sure you can clearly see all areas underneath.
- No part of the user's body should be able to enter under the inflatable.

### **Juggler cones specific notes:**

- All juggler cones could be perceived as sharp objects and as such play must be regulated to 1 user at a time
- Users must not be allowed to jump or bounce near the cones.
- Users must only use the cones for the purpose in which they were designed.

### **Connections & structure**

- All inflatable connections are tested to withstand 2400 Newtons of force to ensure safety during operation.
- Harnesses must be 20 cm wide to distribute pressure and reduce injury risk.

### **Cleaning and Maintenance**

- Wipe surfaces regularly with non-toxic disinfectant.
- Ball pits and soft play surfaces should be cleaned and checked prior and after every hire or daily use.

- Check all stitching, anchor points, and zippers for wear and tear before each use, along with existing daily checks.

**Remember**

Betterbounce toddler play zones are designed for safety and imagination. With your attention and care, it's a space where little ones can explore, learn, and grow—all while having fun.

If you have any questions or require further guidance, contact Betterbounce support & remember this guide must be read in addition to the generic user manual.

## **Safety Mats**

All Mats must adhere to the following specification:

- A mat compliant with EN1177 must extend 1.3 metres from the front of each lane
- Mats must be properly positioned and in good condition before use

## **Inspection Requirements**

Inspections must form the basis for preventative and corrective maintenance, helping to maintain a high operating safety level. This is in addition to BS EN 14960 & HSG175's requirements to have the inflatable inspected annually by a competent person.

## **Routine Visual Inspection (Daily)**

These inspections must be performed daily before use and after any weather event, vandalism, or suspected damage inline with the Health & Safety At Work Act & The PUWER Regulations.

Visual checks must include:

- Bungee harness – integrity and security of fixings and connections
- Connectors – wear of moving parts and general condition
- Shock cords – damage, discolouration, crimp security, or external wear
- Inflatables – Usual visual inspections as per bsen14960

## **Annual Main Inspection**

The annual safety inspection must be Conducted by a competent person and must be tested to bsen14960 part 4 and taking into consideration bsen14960 . This can be the original manufacturer or other body chosen at the time of manufacture.

## **Operating Rules**

- Users must be briefed clearly before use.
- Only one user per lane — no racing starts, pushing, or crossing lanes.
- Supervisor must attach and remove harnesses and check every carabiner before and after each run.
- No unauthorised users near the connection points or rear of the unit.
- Never exceed stated cord weight capacities.

## **Additional Notes**

- Bungee run must not be used in high winds or poor weather.
- Ground must be level, dry, and free of obstructions.
- No modifications should be made to cords, harnesses, or anchor points.
- The bungee cords must be attached using methods stated in bsen14960: part 4

## Electrical Equipment

Electric equipment poses significant hazards in swimming pools or similar environments where moisture is present. The primary risk stems from using electrical appliances in wet areas, a concern that cannot be overstated. Therefore, stringent precautions are necessary to eliminate the risk of electric shock or burns. The continuous flow operation of pool inflatables necessitates the use of such electrical appliances.

The electric fan provided for the inflatable should only be used with the specified electricity supply. Using an incorrect supply is extremely dangerous and will void the warranty. Each fan is equipped with a motor designed to operate at the nominal mains voltage of the country it is supplied in. In the UK and Europe, this is 220-240 volts, 50 Hz A/C. A 110-volt option is available upon request.



Fans must be connected to an earthed socket with an RCD (residual current device) or an earthed supply with a built-in residual current breaker. Extension cables should be avoided due to the risk of water ingress and must be capable of carrying 13 amps if used. All blower devices should be connected using appropriate plugs rather than standard 3-pin plugs.

There are legal requirements for the use and maintenance of portable and transportable electrical equipment, including fans, which are covered in the annual inspection section referring to EN14960.

The unit should undergo Portable Appliance Testing (PAT) by a qualified electrician, based on the risk assessment prepared by the fan's owner. It is also recommended to perform visual checks before and after each use, particularly since the risk is heightened near water.

When positioning the electric fan, ensure it is placed on a mat or another soft surface to absorb vibrations and enhance electrical safety. The fan should be kept well away from the poolside and other wet areas.

For outdoor pools and Lido's it's a good idea to house the device in a waterproof enclosure with good ventilation that doesn't impede airflow.

### Outdoor pools and Lido specific rules

Before each outdoor session, it is crucial to consider weather conditions, including any changes or predictions. If there is any indication of thunder and lightning, the session must be stopped immediately, and the fans should be turned off as soon as it is safe to do so.

In outdoor pools, strong winds or gusts can impact the stability of the inflatable structure. This risk must be assessed before starting each session and continuously monitored throughout.

**Never turn off the fan while the inflatable is still in the water.**

Ensure the inflatable is securely anchored as follows:

- Each anchor peg must withstand a pulling force of at least 167 kg (1600 N). This is essential for safety.

- Suitable ground types for anchorage include grass and hard ground.
- Unsuitable ground types include sand, gravel, previously loosened soil, or any ground that cannot hold the required 167 kg pulling force.

Please refer to the anchorage sections within this manual for further information.

## **General Operation & safety guidance**

In addition to the rules of play and supervision mentioned in this guide which are not superseded by this section, the following safety practices should be observed at all times.

### **User Eligibility**

- Inflatables are not suitable for non-swimmers and weak swimmers.
- Individuals with pre-existing injuries, health concerns, pregnancy, or under the influence of psychotropic substances are not allowed to use the unit.

### **Operator Responsibilities**

- Operators must ensure that users follow all rules at all times.
- One attendant should control entry to the inflatable, allowing users to approach only with permission and forming an orderly queue.
- Operators should ensure users are not engaged in boisterous, careless, or reckless behaviour.
- Operators must ensure the fan(s), anchoring ropes, and closed filler pipes are not tampered with during sessions.
- If the inflatable shows signs of air pressure loss, play should be suspended immediately to investigate and resolve the issue.

### **Safety Measures During Use**

- Ensure the inflatable does not become overcrowded.
- Users should wait until the previous user has reached the 50% mark before allowing another user on. For dual lane inflatables, two users can enter simultaneously.
- Prevent collisions by keeping the run-out area and a surrounding 2.3-meter zone clear.
- Users who fall off should not climb back on but should safely go to the back of the queue.
- Users should be of similar age, size, and ability, especially when competing on dual lane obstacle courses.
- Ensure no one climbs on the structure while it is out of the water or not correctly anchored.
- Never leave the inflatable unsupervised while inflated in the pool.

### **Environmental and Operational Considerations**

- Weather conditions, including wind gusts, should be assessed before and during sessions.
- Direct sunlight can heat the PVC, so the inflatable may need hosing down to stay cool.
- Always use the supplied fan or a manufacturer-approved equivalent. Never turn off the fan while the inflatable is in the water.
- Water the surface of the inflatable, especially the slide, to prevent friction burns.

### **Pool Area Management**

- Ensure the inflatable is appropriately anchored to avoid drifting into deeper water or too close to the pool edge.

- A 2.3-meter clearance zone should be maintained around the inflatable to keep nearby swimmers safe.
- Use a non-slip mattress at the entry point of the inflatable.
- During inflatable sessions, segregate other swimmers or pool users from the immediate area around the inflatable. Provide a roped-off landing area for users exiting the inflatable.

## Emergency Protocols

- Attendants should be equipped with a whistle to attract the attention of users.
- Regular visual checks should be performed before and after each use.
- The system of work should ensure safe and controlled admittance to the inflatable.

## User specific rules

In addition to all the rules displayed in this guide, and your local governments guidance, the following additional rules are imperative to maintain high safety levels.

- Attendants should be qualified lifeguards only.
- Users should be regularly counted to ensure no one is under the inflatable at any time.
- Attendants should only allow 2 users at any one time on the inflatable and additional user in the water swimming to the designated pool exit point.
- Sliding should only ever be feet first, laid on the back, legs crossed at the ankles and arms crossed with hands placed and braces on the shoulders as shown in the diagram below.



- Players should only slide when the landing area is completely clear.
- Diving from the top of the slide into the pool is prohibited due to the danger it poses.
- It is recommended that players weigh no more than 85 kg. This can be adjusted based on specific risk assessments. Heavier users may depress the bed more and cause obstacles and walls to bend, making the inflatable less stable without causing damage.
- Swimming underneath the inflatable is forbidden as it poses significant safety risks.
- Once in the water, move away from the inflatable quickly. Do not attempt to reach, grab, impede, or pull players who are still on the inflatable.
- Control the entry to the inflatable by ensuring players queue in an orderly manner and wait for permission before getting on.
- Prevent and stop any boisterous, careless, or reckless behaviour, such as colliding with others, pushing, or interfering with the inflatable's components.
- Be prepared to suspend play immediately if the inflatable shows signs of air pressure loss or instability. Investigate and address the issue before resuming play.
- The inflatable should never be left in the pool unattended. When not in use either keep a lifeguard on guard at all times or remove the inflatable from the water and leave deflated



safety secured on the side of the pool, ensuring inflation is impossible with the removal of the inflation device.

- Upon completion of the activity, it's essential that the depth at the finish point is at least 1.5m to ensure safety standards are met. The proper utilization of anchor ropes and anchor points is vital for securing the inflatable in place.
- Players should be made aware of the varying water depths at both the start and finish points of the inflatable, as well as in the surrounding areas

### **Tips for Firming Up Your Inflatable (Lack of pressure)**

Never ever use an under pressurised inflatable and ensure all users have been safely evacuated before making any changes. If the inflatable has gone softer, there are several reasons this might happen, but here are some simple steps you can take to make a significant difference:

- **Maximize Air Pressure**
  - By ensuring the hose is the right length and fully extended, you can increase the air pressure in the inflatable by up to 30%.
- **Optimize Hose Length**
  - Ensure the hose is cut to the correct length.
  - If the hose is longer than necessary, cut it shorter. The shorter the hose, the higher the air pressure inside the inflatable.
- **Straighten the Hose**
  - Make sure the hose is straight and not kinked or twisted.
  - If you are using a concertina-type hose, fully extend it. This helps maintain higher air pressure within the inflatable.

Implementing these adjustments can significantly improve the firmness and stability of your inflatable, making it more enjoyable and safer to use. **NEVER USE AND UNDER PRESSURISED POOL INFLATABLE.**

### **Installing your pool inflatable**

Please familiarise yourself with the instructions regarding land inflatables being installed and understand the basic principles before reading this section as pool inflatables do differ slightly on installation and operation.

The following pool specific rules have been drafted to ensure ease of installation and maximum safety.

- Transport the inflatable to the designated site area using a sack truck or trolley, ensuring compliance with manual handling regulations. Multiple individuals may be required to execute this task safely.
- Unroll the unit alongside the pool in preparation for setup.
- Secure one end of the flexible hose into the PVC connector of the filler pipe using a buckle strap.
- Securely attach the other end of the PVC filler pipe to the blower cone using buckle straps.
- Connect and secure any additional air ducts using heavy-duty banding.
- Close and secure any other deflation tubes properly.
- Securely attach ropes to the inflatable's anchor points, refraining from attaching any weights at this stage.
- Ensure all cables are safely managed away from the pool area as previously instructed.
- Confirm that the inflation area is clear of users, then switch on the inflatable.
- Once fully inflated, carefully push the inflatable onto the water and position it accordingly. Having a lifeguard in the water can aid in making minor adjustments at this stage.

- Verify that the anchor ropes are of appropriate length and securely tie weights to them as needed. Properly adjusted anchors should be firm without excessive tension or slack.
- Install pool entry matting or a padded drop mat at the beginning of the inflatable.
- Ensure a maximum drop of less than 330mm onto the start of the inflatable for safe pool access.
- Maintain a clear space of 2.3 meters at the end of the inflatable.
- Maintain a minimum distance of 1 meter from the poolside wall to the start of the inflatable, with a maximum of 1.5 meters for safety.
- Inflatable slides with a platform height over more than 1.5meters will require increase maximum depths of up to 6meters and clear run offs of up to 6meters.
- Secure the four corner ropes horizontally to the water's surface, at a 35-degree angle from the end of the inflatable, to maximize stability and keep the slide zone clear of ropes where possible.
- Ensure a minimum clearance of 2.5 meters around the inflatable where possible. If clearance is less, provide drop mats for user protection.
- The minimum pool depth for the start of the inflatable must be a minimum of 0.9meters from the underside of the inflatable in an unloaded condition.
- The minimum depth for the exit end should be a minimum of 1.5m where possible.
- Any depths falling short of the above, the lifeguards should be vigilant to prevent players diving off the top of the slide.
- Anchor ropes should be slack and laid along the water's surface to reduce the risk of injury. Use smooth, padded, brightly coloured ropes with rubber expansion pieces or stabilizers.
- In case of movement, the rubber shock absorbers on the anchor ropes will prevent excessive displacement and return the unit to its desired position.
- Secure any loose ends of anchor ropes and position the air pipe to avoid hazards for users.
- Ensure all anchor ropes and attachments are sufficiently tensioned to maintain the unit's correct position relative to the pool sides and bottom, ensuring continued security.
- Please now carry out any daily checks before allowing users to enter the inflatable.

## **Cleaning and hygiene**

Ensuring the cleanliness of children's play equipment is paramount, and adherence to rigorous hygiene standards is imperative. Maintaining excellent hygiene practices is a fundamental requirement for all pool facilities. It is essential to clean the PVC surface of inflatables regularly using a non-corrosive antibacterial cleaning solution. In cases where immediate cleaning is necessary, a suitable non-abrasive cleaner can be used temporarily.

Please only use this inflatable on advise from your water treatment professional. As you will be aware Common Bacteria Found in Swimming Pools can range from Crypto, E. coli, Pseudomonas aeruginosa and giardia. Cryptosporidium is highly resistant to chlorine and commonly causes diarrhoea, stomach cramps, sever illness and death among swimmers which would find itself at home in the inflatable if not looked after carefully.

By employing an appropriate antibacterial solution during inflatable cleaning, the likelihood of infections can be substantially reduced. Inflatables stored in damp conditions create an ideal environment for Pseudomonas to proliferate, increasing the risk of skin follicle infections in children, especially with water slide elements.

We do offer a Mold inflatable cleaning solution upon request to ensure effective cleaning without damaging the PVC or artwork. It's crucial to avoid using household cleaners that may remove applied artwork, cause PVC damage, or degrade stitching. Before using unfamiliar cleaners, conduct a test on a small, inconspicuous area of fabric or artwork to assess compatibility.

Special attention should be given when cleaning applied artwork, especially when wet, as vigorous rubbing or harsh chemical agents may damage the paint. Compliance with regulations such as the Control of Substances Hazardous to Health Regulations (COSHH) is essential to ensure safe cleaning practices.

These regulations outline guidelines for handling potentially hazardous substances to protect both users and the environment and can usually be found on the government website for your country.

Remember all inflatables are a breeding ground for mild which can destroy your inflatable. Please ensure an inflatable is packed away 100% dry on the inside as well as the outside. Wet castles is the no 1 cause of mold and can often be unfixable if left for periods of 2 weeks or more.

## **Music & light systems in the play area**

As a rule, EN14960 prevents the use of hard objects located within the play area and as such, we must use extra precautions to avoid unnecessary injury and maintain compliance with the regulations. Permanent electronic cables are also not permitted.

All Betterbounce inflatables that include the “Disco ready” feature should be used with extreme caution and only as follows:

All inflatables should have a padded speaker protector system between the sound mesh on the inside of the inflatable. This can be seen in baby blue and baby pink in picture 1 below.

This must be placed on the inside of the mesh shown in picture 3, by inserting the pad into the Velcro concealed compartment shown in picture 4.

The speaker must also be free from sharp or pointy objects and be curved for maximum protection wherever possible. This speaker must only be used when inserted into a protective speaker bag as shown in picture 2 that has sufficient impact attenuation to prevent injury from a fall of equal to the height of the user.

All cables should be located outside of the inflatable in a temporary manor unlikely to cause injury and must be easily removed by the supervisors in the event of incident and not permanently internally wired.

All cables must be PAT tested as required by law and be inspected for damage visually prior to each use



# **Risk Assessment for Inflatable Events**

To ensure the safety of all participants and attendees at inflatable events, conducting comprehensive risk assessments is paramount. You will find a variety of risk assessment templates and related documents attached, each serving as a valuable resource for your risk assessment process.

It's important to note that these assessments are provided in a general format to establish a foundational framework. However, customization is essential to tailor them to your specific venue, inflatable setup, and location.

Customization isn't merely a suggestion; it's a legal requirement. Organizing events comes with distinct legal responsibilities, and conducting a risk assessment tailored to your unique circumstances is an integral part of fulfilling these obligations. The Health and Safety Executive (HSE) emphasizes that risk assessments are mandatory for events, as they help identify and mitigate potential hazards, ultimately reducing the risk of accidents and injuries.

Failure to conduct a proper risk assessment can lead to serious consequences. If an incident occurs, and it is found that a thorough risk assessment was not carried out, event organizers can face legal liabilities. This may include fines, legal actions, and reputational damage. It's crucial to note that the responsibility for ensuring the safety of event participants falls squarely on the event organizer.

Each of the attached documents is thoughtfully designed to be fully editable, enabling you to make necessary adjustments effortlessly. This flexibility simplifies the process of creating a comprehensive and effective risk assessment strategy tailored to your event's unique needs.

We strongly encourage you to seek guidance and support from relevant health and safety authorities as you navigate the risk assessment process. They can provide valuable insights and ensure that your assessment adheres to the latest safety regulations and best practices.

Given that multiple documents are provided, we understand that managing these assessments may appear complex. However, we want to assure you that by dedicating time to this process, you are taking a substantial step toward creating a safe and enjoyable environment for everyone involved in your inflatable event.

Should you have any queries or require further clarification, please do not hesitate to seek further guidance from the relevant health and safety bodies available. Your commitment to safety is deeply appreciated and fundamental to the success of your event.

[Attachment: ADULT Bouncy Castle - Risk Assessment.doc](#)

[Attachment: Ball Pool - Risk Assessment.doc](#)

[Attachment: Bouncy Castle - Risk Assessment.doc](#)

[Attachment: Assault Course - Risk Assessment.doc](#)

[Attachment: castle,slide combo - Risk Assessment.doc](#)

[Attachment: Football Shootout - Risk Assessment.doc](#)

[Attachment: Gladiator Dual - 2 man version - Risk Assessment.doc](#)

[Attachment: Slides - Risk Assessment.doc](#)

[Attachment: Risk Assessment - Generator.doc](#)

## Document Summary

This Inflatable Equipment Operation Manual is the intellectual property of Betterbounce. All rights are reserved. No part of this manual may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Betterbounce, except in the case of brief quotations embodied in critical reviews and certain other non-commercial uses permitted by copyright law.

While every effort has been made to ensure the accuracy and completeness of the information provided in this manual, Betterbounce makes no representations or warranties as to the accuracy, suitability, or completeness of the information contained herein. The information is provided "as is" and without warranty of any kind, either expressed or implied.

It is crucial to note that the safe operation of inflatable equipment, as outlined in this manual, requires adequate training. Training programs offered by organizations such as PIPA <https://www.pipa.org.uk> are highly recommended as they provide valuable insights into inflatable equipment supervision and operation. Owners, controllers, operators, and attendants are encouraged to seek training from reputable sources to ensure user safety and regulatory compliance.

Betterbounce shall not be liable for any misuse of inflatable equipment or omissions or errors in this manual. Users of this manual are responsible for adhering to safety standards, legal requirements, and best practices related to inflatable equipment operation and maintenance.

As Betterbounce is committed to constant innovation and development, the electronic version of our manual may encompass additional information that goes beyond what's available in the printed version. This digital format allows us to deliver the most up-to-date and comprehensive guidance to ensure your continued safety and satisfaction.

**Contact Information:** For inquiries related to this manual or inflatable equipment operation, please contact Betterbounce using the information below and for full terms and conditions of sale, please click here: <https://www.better-bounce.co.uk/pages/terms-and-conditions#BodyContent>

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Your commitment to safety and responsible operation is paramount. By using this manual and seeking adequate training, you are taking significant steps to ensure the well-being of inflatable users and the compliance of your equipment with safety regulations.

Thank you for choosing Betterbounce for your inflatable equipment needs.



**IMPORTANT – PLEASE READ BEFORE INFLATING YOUR PRODUCT**