

VETTER Safety Cushion

SP 16 / SC 50

(Maximum jump height 50 ft)

Translation of the original operating instructions



This manual contains important safety information. Read all warnings and instructions carefully before use.



Practice jumps, training jumps, demonstration jumps, Fire Academy / School jumps etc. **ARE NEVER PERMITTED!**



Keep in a safe place for future use.



Contents

1. Limitation of liability	2
2. Safety	2
2.1 Important - read all instructions before use	2
2.2 Meaning of the signal words	3
2.3 Safety warnings	3
3. Completeness check	5
4. Description	6
4.1 Technical description	6
4.2 Technical data	7
5. Using the Vetter safety cushion	7
5.1 Possible uses of safety cushions	7
5.2 Selecting the site	7
5.3 Preparing the safety cushion for use	8
5.4 After use	9
5.5 Inspection and cleaning after use	9
5.6 Storage and maintenance	10
5.7 Packing instruction	11
6. Maintenance and Required Periodic Safety Testing	13
6.1 Test periods	15
6.2 Documentation	15
7. Disposal	15

1. Limitation of liability

Jumping or falling during a rescue situation is an inherently dangerous activity. When used properly by trained professionals in accordance with all instructions and warnings contained in this manual and applicable regulations, policies and procedures, the safety cushion can reduce the risk and/or severity of injury or damage, but it cannot eliminate the risk of injury or damage entirely. Vetter assumes no liability for any injury or damage that may occur in connection with the use of the safety cushion.

In no event will Vetter be liable for any loss, damage or injury to any person or property caused by:

1. Use of the safety cushion by anyone other than professional firefighting or rescue personnel properly and adequately trained in its use.
2. Use of the safety cushion in a manner that is not in strict compliance with all instructions and warnings contained in this manual.
3. Use of the safety cushion in a manner that is not in compliance with applicable laws and regulations and/or applicable fire department policies and procedures.
4. Lack of maintenance or improperly performed maintenance of the safety cushion, including any maintenance, repair or modification attempts by anyone other than the manufacturer or its authorized service providers.
5. Failure to obtain annual safety testing from the manufacturer as set forth in this manual.

THIS SAFETY CUSHION IS PROVIDED "AS IS" AND "WITH ALL FAULTS," AND VETTER MAKES NO WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THE SAFETY CUSHION. VETTER EXPRESSLY DISCLAIMS ANY AND ALL EXPRESS AND IMPLIED WARRANTIES AND REPRESENTATIONS OF ANY KIND, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

TO THE MAXIMUM EXTENT PERMITTED BY LAW, VETTER SHALL HAVE NO LIABILITY WHATSOEVER FOR ANY DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR SPECIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS OR COMMERCIAL LOSS, LOSS OF GOODWILL OR BUSINESS INTERRUPTION, WHETHER RESULTING FROM BREACH OF WARRANTY, TORT, CONTRACT OR ANY OTHER LEGAL OR EQUITABLE THEORY.

2. Safety

2.1 Important - read all instructions before use

It is crucial that you carefully read and follow all instructions and warnings regarding the use, site selection, setup, maintenance and testing of the safety cushion before using the product.





This safety cushion should only be used by duly authorized and trained fire department personnel.

The safety cushion should only be used in case of an emergency for the rescue of jumping or falling persons. It should not be used for practice, exercise or any other purpose.




Live jumps should not be conducted for training, testing or demonstration purposes!






Only specifically designed falling objects, such as sand bags or dummies, should be used for training test purposes.

2.2 Meaning of the signal words

DANGER!	
	"DANGER!" indicates an imminently hazardous situation that could result in death or serious injury if not avoided.
WARNING!	
	"WARNING!" indicates a potentially hazardous situation that could result in death or serious injury if not avoided.
CAUTION!	
	"CAUTION!" indicates a potentially hazardous situation that may result in minor or moderate injury if not avoided.
ATTENTION!	
	"ATTENTION!" indicates procedures that do not cause personal injury, but may cause property damage if not avoided.


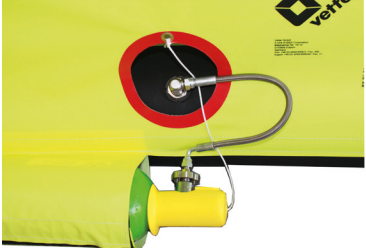


2.3 Safety warnings

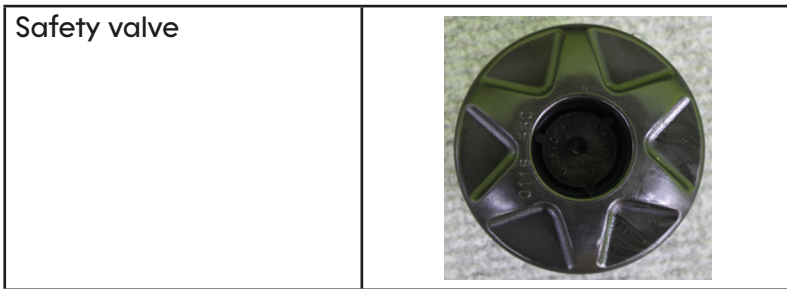
DANGER!	
	Failure to observe the permissible falling height can result in serious physical injury or even death. Do not use for jumps / falls from heights exceeding 50 ft.
	There is a risk of objects falling or being thrown around. Wear a helmet. Wear a face guard. Wear protective clothing. Wear protective gloves. Wear safety shoes. When working with the safety cushion, note that material can shear off, tear off or break off and thus fall or be ejected. Therefore, those not involved in the operation should remain at a distance appropriate to the situation.
	WARNING!
	Product lifespan of 15 years! Do not use after product lifespan.
	Exercise care in site selection and placement of the safety cushion. Do not place the cushion on rough surfaces/ rocks/ sharp objects. Do not place in close proximity to open flame or on hot surfaces. Do not use in temperatures that exceed 158 °F.
	Exercise care in moving the safety cushion. Use the handles and do not drag it.

CAUTION!	
	Practice jumps, training jumps, demonstration jumps, Fire Academy / School jumps etc. ARE NEVER PERMITTED!
	<p>There is a risk of injuries to the skin due to thermal influences.</p> <p>Wear protective clothing.</p> <p>Wear protective gloves.</p> <p>Do not touch any objects or materials at very high or very low temperatures.</p> <p>Keep your distance to sources of heat.</p>
ATTENTION!	
	<p>Read and follow the instructions to avoid potential damage!</p> <p>The operating manuals for accessories must also be observed!</p> <p>Always keep these operating instructions in an easily accessible location, close to the device at the place of operation, for future reference.</p> <p>Observe all safety instructions and hazard information on the device and in the operating manual!</p> <p>Please ensure that the accessories you use are designed to withstand the maximum operating pressure of the safety cushion.</p>
	Properly dispose of all components and packaging materials.
	<p>The safety cushions may not be inflated with a compressed-air cylinder fitted with a valve with outflow protection.</p> <p>For this reason, inflation is only possible with compressed air/working air containers with consideration given to the manufacturer's specifications and the test operation. A valve <u>without</u> outflow protection must be used.</p> <p>Only the original Vetter fittings and valves are may be used for filling the safety cushion.</p> <p>All safety instructions on the product must always be kept in a complete and legible condition!</p> <p>Observe all intervals for recurring tests and inspections as described in the "Maintenance" section!</p> <p>Always ensure that the product and accessories are firmly secured before transportation!</p> <p>Refrain from any working methods that could impair or endanger the safety of the safety cushion!</p> <p>Failure to strictly comply with the instructions and warnings contained in this manual and with any and all applicable regulations or fire department policies or procedures may result in death, severe personally injury and/or property damage. Vetter will not be liable for any injury or damages that result from the use of the safety cushion in a manner that is inconsistent with these instructions and warnings or applicable regulations, policies or procedures!</p>

3. Completeness check

The completeness and integrity of the components must be checked before and after every use.

<p>Safety cushion completely erected</p>	
<p>Inflation hose</p>	
<p>SC 50 Compressed-air cylinder, 4500 psi, liquid air volume min. 6 liters, female CGA 347, without restrictor, without Excess Flow Valve (EFV)</p> <p>SC 80 Compressed-air cylinder, 4500 psi, liquid air volume min. 9 liters, female CGA 347, without restrictor, without Excess Flow Valve (EFV)</p>	 <p>*Product Example: There may be discrepancies between the data in the operating instructions and that of your product.</p>
<p>Quick-action ventilating valve, item 1 with air vent key, item 2</p>	



4. Description

⚠ WARNING!

DANGER OF INJURY!

There is a risk that the position of the safety cushion may change as a result of the previous jump.

Realign/ Rearranged the safety cushion.

The VETTER safety cushion consists of a self-erecting hose-equipped supporting frame. The supporting frame is designed to be extremely durable to reduce the likelihood of tears. The material used for the external tarpaulins is designed to reduce the risk of catching on fire or disintegrating.

The supporting frame will be inflated with air with a maximum pressure of 5.37 psi when the valve at the compressed-air cylinder is opened. The safety valve integrated in the cylinder fittings will prevent over-inflation and an inadmissible pressure increase due to temperature influences.

The safety cushion will be inflated within 30 sec and erect itself automatically.

It can only be used after it is fully inflated and erected.

When a load hits the safety cushion, the internal supports will collapse.

After the load has been removed, the supporting frame will automatically re-erect itself and restore its original shape.

It may be possible after several load changes that change to small quantities of air can leak through the safety valve. This can be easily compensated by briefly opening the air valve of the compressed-air cylinder.

4.1 Technical description

External dimensions, approx. inch 137.8 x 137.8

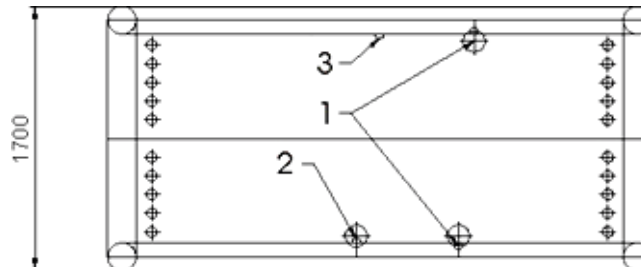
Height, approx. inch 67



**Product Example: There may be discrepancies between the data in the operating instructions and that of your product.*

Side view of the entire appliance

- 1 Vent valves
- 2 Filling adapter
- 3 Safety valve



4.2 Technical data

Safety cushion SC 50

Maximum jump height	ft	50
External dimensions (L x W x H)	inch	138 x 138 x 67
Working pressure	psi	5.37
Test pressure	psi	6.96
Air requirement	cu.ft.	49
Inflating time, approx.	sec.	30
Recovery time	sec.	10
Weight, incl. compressed-air cylinder	lbs	121
Folded size (L x W x H)	inch	34 x 21 x 17
Temperature range	°F	- 4 to + 122

5. Using the Vetter safety cushion

5.1 Possible uses of safety cushions

⚠ CAUTION!

Jumping or falling during a rescue situation is inherently dangerous, and the use of a safety cushion cannot eliminate the risk of injury in such situations.

When used properly in accordance with these instructions, this safety cushion can reduce the risk and/or severity of injury, but it cannot eliminate the risk of injury entirely.

⚠ CAUTION!

Practice jumps, training jumps, demonstration jumps, Fire Academy / School jumps etc. ARE NEVER PERMITTED!

In rescue operations, safety cushions can be deployed as psychological support and as an additional rescue measure in order to be able to react quickly to unpredictable situations. The safety cushion only be used if there is no other way of rescuing the person(s) concerned (such as a fire-escape ladder).

5.2 Selecting the site

⚠ DANGER!

DANGER DUE TO UNACCEPTABLE CONDUCT!

Failure to observe the permissible falling height can result in serious physical injury

or even death.

The falling height of the SC 50 may not exceed 50 ft.

The placement of the safety cushion depends on the situation and the local conditions and should be selected carefully by trained professionals, in accordance with any applicable regulations, policies and procedures.

The surface on which the safety cushion is placed should be free from sharp or abrasive surfaces, rocks or other foreign materials that may cut or damage the covering material.

The safety cushion must also be protected against heat that exceed 158 °F degrees and should not be placed in close proximity to open flames.

Where possible, the exact location and placement of the safety cushion should be determined by the officer in charge of the rescue operation.

The safety cushion should be placed directly under the person to be rescued. Jumps with a run-up should be avoided. Push off slightly perpendicular to the face of the building or structure and drop into it.

The safety cushion can move following a jump. The position and alignment of the safety cushion should be carefully assessed after each jump, and re-aligned, if necessary.

The safety cushion must only be lifted and re-positioned by its carrier loops. It should not be dragged along on rough ground for safety reasons and to ensure a long service life.

After the rescued person has left the safety cushion, the safety cushion automatically straightens up and is suitable for the rescue of the next person.

5.3 Preparing the safety cushion for use

Take the safety cushion out of the vehicle and place it on sufficient empty space.

The officer in charge of the operation should decide, whether the safety cushion is to be put up at the actual site of emergency or whether it is to be put up at a safe place before its use, from where it will be taken to the site of emergency.

Release the tightening belts of the packaging by pressing the key-locks, remove the PVC cap from the compressed-air cylinder and open the valve on the compressed-air cylinder by turning. (turn left)

Inflate the safety cushion with air up to a maximum pressure of 5.37 psi. The safety cushion unrolls itself and fully rises.

⚠ WARNING!

DANGER DUE TO UNACCEPTABLE CONDUCT!

Take particular care that no one can jump into the rescue cushion during setup.

If the maximum operating pressure of 5.37 psi is exceeded, the safety valve integrated in the safety cushion will open automatically and prevent an inadmissible pressure inside the supporting frame.

The safety valve opens at approx. 5.37 psi. If you can hear the safety valve trip during use, you must close the handwheel valve on the compressed-air cylinder to be able to use the remaining air for additional jumps.

The safety cushion is now ready for use and can be carried (by at least 2 people) into the area where people are to be rescued.

The safety cushion is only ready for use, when the pressure inside the supporting frame has reached 5.37 psi and when the safety cushion is completely erect.

⚠ WARNING!

DANGER DUE TO UNACCEPTABLE CONDUCT!

Do not use the safety cushion if the pressure does not reach 5.37 psi. It is not necessary to refill with compressed air as long as the safety cushion is fully inflated / becomes inflated again after use. Filling the supporting frame is sufficient for securely holding the safety cushion upright in an intact state during use.

Put the safety cushion in its right position by lifting it on the carrier loops.

⚠ DANGER!

DANGER DUE TO UNACCEPTABLE CONDUCT!

Failure to observe the permissible falling height can result in serious physical injury or even death.

The falling height of the SC 50 may not exceed 50 ft.

⚠ CAUTION!

DANGER DUE TO UNACCEPTABLE CONDUCT!

Only one person can jump at a time!

The safety cushion may only be used again after the rescued person has completely vacated the safety cushion and it has been completely re-erected and you have ensured that it has re-inflated to 5.37 psi.

⚠ WARNING!

DANGER DUE TO UNACCEPTABLE CONDUCT!

After each jump, it must be checked whether the safety cushion is still placed directly under the persons to be rescued and whether there is enough air in the safety cushion.

5.4 After use

Remove safety cushion from the rescue zone and empty the support frame in an open space outside of the range of jumping persons or falling objects.

Use the vent key to open the vent valve.

To do this, turn the key in the valve until you can feel it latch into position.

Temporarily fold the safety cushion together and prepare it for re-use in an existing free area.

If the safety cushion was not used, check that it is clean and wipe dust and sand off the floor. It can then be repacked.

5.5 Inspection and cleaning after use

❗ PROPERTY DAMAGE DUE TO IMPROPER HANDLING!

The safety cushion should be inspected after each use and cleaned before storage.

Re-inflate the soiled safety cushion. Clean it properly with hand-



warm clean or soapy water. Rinse the soapy water thoroughly and let the safety cushion dry at normal room temperatures.

The empty compressed-air cylinder needs to be refilled or exchanged with a full one.

! PROPERTY DAMAGE DUE TO IMPROPER HANDLING!

Important! Check, whether the new compressed-air cylinder is tight. Inspect the safety cushion and the filling gear for possible damage.

! PROPERTY DAMAGE DUE TO IMPROPER HANDLING!

The safety cushions may not be inflated with a compressed-air cylinder fitted with a pressure Excess Flow Valve (EFV) with outflow protection.

The set-up time would be dangerously extended thus making it unsuitable for fire service operation. The implied valves are not marked and the EFV cannot be recognized in the assembled condition of the valve.

For this reason, inflation is only possible with compressed air/working air cylinders with consideration given to the manufacturer's specifications and the test operation. (see chapter "3. Completeness check")

Empty the safety cushion and close the vent valve.

Fold the safety cushion in accordance with the packing plan below.

The Vetter safety cushion is now ready for its next use.

5.6 Storage and maintenance

Storage

The safety cushion should only be stored in clean and dry conditions.

The optimum storage temperature is between 77°F and must not fall below -14°F under any circumstances.

The product must be stored in such a way that it is free from pressure, tension, sharp-edged objects or similar deformations.

The product's service life may be significantly affected depending on the external influences, temperature and storage conditions.

Maintenance

! PROPERTY DAMAGE DUE TO IMPROPER HANDLING!

For this purpose return the safety cushion to the manufacturer only without the compressed-air cylinder.

Maintenance and repairs should only be carried out by authorized service providers specifically trained by the manufacturer. Unauthorized maintenance or repair attempts could damage the product and lead to severe injury, including death and/or property damage. Vetter will not be liable for injury or damage caused by unauthorized repair or maintenance.

If there are any doubts about the reliable functioning or the safety of the safety cushion, ask the manufacturer for a test.

5.7 Packing instruction

After the mission without a rescue jump or after training

Check the safety cushion for holes, wipe off dust and sand, and make sure the safety cushion is dry before packing. Refill the compressed-air cylinder. Pack together the safety cushion with a full cylinder and pack the cylinder together with the safety cushion.

After the operation with rescue jump

The safety cushion and the compressed-air cylinder must be checked by an approved institution or authorized trained personnel. This review shall be noted in the audit report.

The safety cushion may only be packed if it is clean and dry.

Completely empty the support frame of the safety cushion.

Use the vent key to open the vent valve. To do this, turn the key in the valve until you can feel it latch into position.

After most of the air has escaped, fold together the safety cushion as described in the following folding instructions to press out the remaining air. Then spread out the safety cushion again. Repeat this process if necessary, until the air has completely escaped from the safety cushion.

! PROPERTY DAMAGE DUE TO IMPROPER HANDLING!

For this purpose return the safety cushion to the manufacturer only without the compressed-air cylinder.

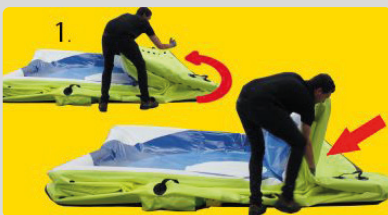
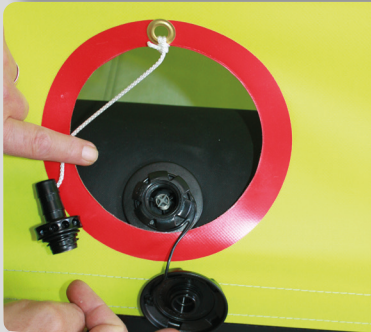
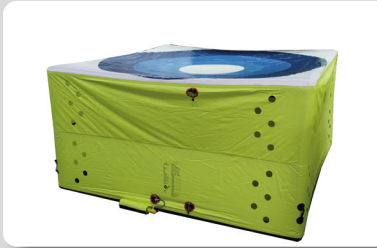
The valve protection cap on the safety cushion does not prevent an uncontrolled opening of the compressed-air cylinder during vibrations and transport. For that purpose we recommend a separately available valve protection. Item no. 1600027700 (see photo).

or:

1. Lay out the safety cushion uniformly in the square! Place the upper and lower support hoses on top of each other and press the side panel tarp towards the inside.

2. Using vacuum adapter (Art. No.: 1600 0163 01). extract the remaining air completely from the support frame (ejector principle).

To do this, latch the vacuum adapter into the vent valve and connect to an air source (e.g. compressed-air cylinder with pressure reducer). Input pressure max. 87 psi, optimally 58 psi. Repeat the process if necessary before attaching the packaging tarpaulin.



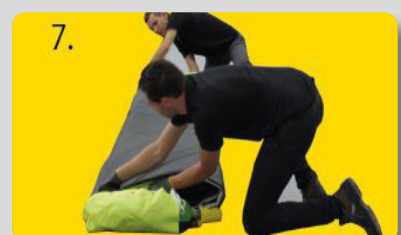
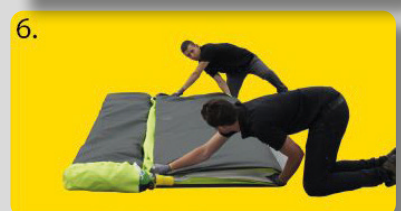
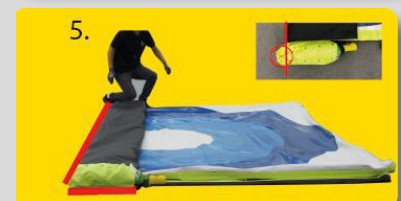
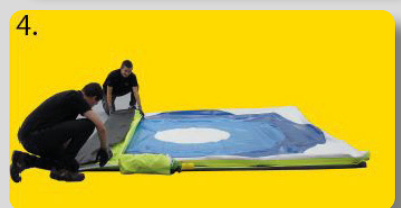
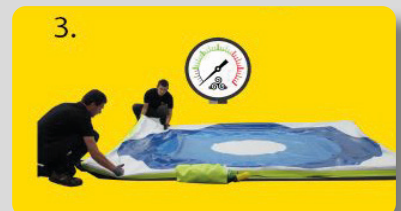
3. Do not start packing until the air has been completely removed from the support frame.

4. The starting position and end face is the connection side with the compressed-air cylinder. Fold in the side to the left of it up to the compressed-air cylinder.

5. Fold over again up to the top of the cylinder body.

6. Fold in the right-hand side of the safety cushion to the middle.

7. Fold in again on the left-hand side.





8. Now roll up the safety cushion as tightly as possible, rolling towards the compressed-air cylinder. The width of the rolled-up safety cushion must not exceed max. 35 inch. Any residual air still in the support frame can escape via the still open vent valve.

If necessary, use the vacuum adapter to extract the remaining air from the support frame!

If the residual air has completely escaped

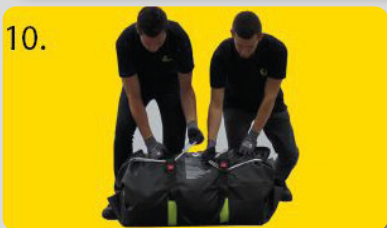
Close the vent valve!



9. To do this, unscrew the vent key (valve then closes automatically) and close the cover of the vent valve.

Position the checked and filled compressed-air cylinder in the cylinder bracket.

Put on the valve protection cap.



10. Fold over the packaging tarp. Now use the straps to lash the safety cushion. **Do NOT knot the side tie fastening!** Tighten the straps at the corresponding strap tensioners as required.

It is necessary to ensure that all vent valves are closed and the safety cushion is packed with a full compressed-air cylinder! The used compressed-air cylinder is a pressure vessel! Periodic test intervals must be complied with!

The safety cushion can then be stowed away on a vehicle.

6. Maintenance and Required Periodic Safety Testing

⚠ DANGER!

DANGER DUE TO UNACCEPTABLE CONDUCT!

There is a risk of unforeseeable injury and damage to the bag!

Repairing or modifying the safety cushion, and attempts to repair, modify, disassemble or tamper with the safety cushion by anyone other than an authorized service provider may result in damage to the safety cushion, serious injury (including death) and/or property damage.

- Safety devices must never be disabled.
- Do not make any changes (attachments or conversions).
- Never work in a fatigued or intoxicated state.
- Only use the device as described in the chapter entitled "Intended use".
- Check for visible defects or damage before and after use.
- Report any changes immediately (including changes in operating behavior).

If necessary, shut down and secure the device immediately.

- Before use and during operation, it must be ensured that nobody will be put at risk by operation.
- In case of malfunctions, shut down and secure the device immediately. The fault should be rectified immediately.
- Properly record the condition, faults and repairs.
Adhere to the maintenance and inspection schedule.

⚠ WARNING!

DANGER DUE TO UNACCEPTABLE CONDUCT!

For reasons, the service life of the safety cushion is limited to 15 years. It must not be used thereafter for exercise or any other purpose.

⚠ CAUTION!

DANGER DUE TO UNACCEPTABLE CONDUCT!

In exercises with a falling body, according to DIN 14151-3, Clause 10, only falling bodies with a weight of 110.23 lbs may be used and only from a falling height from 39.37 ft maximum (e.g.: sandbags or dummies).

Regular safety inspections by the manufacturer or authorized bodies are required to ensure the safe operation of the safety cushion. Safety cushions may only be maintained and repaired by persons who have been authorized in writing, who work in a maintenance point that has been authorized by the manufacturer, and who are knowledgeable about the pertinent safety regulations and accident prevention regulations that apply here. Persons and institutions exclusively authorized to carry out the inspections:

Annual and after use inspections

As a recommendation of the manufacturer only authorized persons.

We recommend a maintenance interval of 12 months.

The main safety check

The main safety test will be performed by the manufacturer, persons authorized by the manufacturer or authorized bodies as well as persons after having attended an additional authorized training course organized by the manufacturer.

This instructor must have been authorized in writing.

This authorization is valid for a maximum period of 60 months and can be extended on application after a further course of training has been attended.

The expert or the test institution in which he works must possess the test equipment necessary to carry out the tests and inspections to the extent required.

The general safety test

The general safety test will be exclusively carried out by the manufacturer.

6.1 Test periods

1. Year	Annual inspection	9. Year	Annual inspection
2. Year	Annual inspection	10. Year	General safety test
3. Year	Annual inspection	11. Year	Annual inspection
4. Year	Annual inspection	12. Year	Annual inspection
5. Year	Main safety check	13. Year	Main safety check
6. Year	Annual inspection	14. Year	Annual inspection
7. Year	Annual inspection	15. Year	Scrapping
8. Year	Main safety check		

! PROPERTY DAMAGE DUE TO IMPROPER HANDLING!

For this purpose return the safety cushion to the manufacturer only without the compressed-air cylinder.

If there are any doubts about the reliable functioning or the safety of the safety cushion the manufacturer must always be approached for a general safety test.

6.2 Documentation

Every training, every inspection and every repair must be noted in the test report. Annual inspections and repairs as well as inspections after deployment with rescue jump must be noted separately in the test report.

The individual tests, checks and inspections shall be carried out in accordance with the operating instructions.

The tests, checks and inspections carried out shall be recorded in a test protocol. (Please make a copy of the page, if required.)

The tests, checks and inspections carried out shall also be recorded permanently in the relevant logbook (included in the scope of supply) and at the safety cushion itself (type plate).

7. Disposal

Disused safety cushions must be disposed of in accordance with regional and country-specific disposal regulations.

Notes



Practice jumps, training jumps, demonstration jumps, Fire Academy / School jumps etc. ARE NEVER PERMITTED!

Place your trust in Vetter emergency pneumatics!

We are the company who can help you, find a solution to your problem!

US contact: **HURST Jaws of Life**
A trusted *IDEX Fire and Safety* Brand

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