

FASET Bulletin SLS02 (Revision 1)

Soft Landing Systems

Summary

Soft Landing Systems provide passive, collective fall arrest for operatives working at height; typically whilst installing precast concrete planks, metal decking, roof trusses and other applications where alternative systems such as edge protection and safety nets are not practicable. They are positioned directly below the operative, filling the void beneath, thus providing a soft landing for the faller.

Soft Landing Systems do not prevent a fall from occurring but minimise the consequences of the fall.

The individual bags must be clipped together at all times to form an effective Soft Landing System free of gaps which a person could fall through.

Soft Landing Systems typically require a retaining structure such as the walls of a house for support, except in the case of Trailer Bag systems.

PAS 59: 2014 - Specification for collective fall arrest soft landing systems - is the standard for this type of system. Guidance from the manufacturer for planning and use of Soft Landing Systems should always be considered prior to use.

System Types

Constant Air System

- Comprise of bags of various sizes that are inflated with air from a blower.
- Blower may be petrol, electric or battery powered. The blower needs to remain in place and running at tick over / idling speed to retain inflation throughout use. Flexible hoses connect the bags to deliver air throughout the system and bungs are used to close off any unwanted inlets. Ventilation must always be considered if using a petrol blower.
- Stand at 1,600mm high when inflated.
- Must never be double stacked.
- Can also be used around trailers (referred to as Trailer Bags) to protect those working on them. Trailer Bags are manufactured for this use only and include parapets to prevent the falling operatives rolling off the edge of the system. They must be attached to the trailer and they require adequate space for the parked vehicle and inflated bags.



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Inflated Air Systems

- Comprise of an inner liner which is inflated on site and an outer protective bag made from woven polypropylene.
- Inflated via a non-return valve and takes approximately 40 seconds per bag.
- Does not require constant inflation - once inflated the bags can be sealed and the blower can be removed.
- Stand 750mm high by 2100mm long when inflated.
- Irregular shapes are accommodated by pushing a part inflated bag into the gap and then completing the inflation to the normal pressure.
- Can be double stacked provided the system is contained and the bags are laid perpendicular to the layer below.

Filled System

- Comprise of bags filled with air pockets or small polystyrene pieces.
- Supplied pre-filled by the manufacturer.
- Typically stand 600mm high by 1900mm long.
- Whole of the room space requires filling with the bags to provide support. The bags can be laid in alternate directions to fill the room as required.
- Can be double stacked provided the system is contained and the bags are laid perpendicular to the layer below.



Temporary Works

General Considerations

- Soft Landing Systems must only be installed, altered and dismantled by trained and competent operatives.
- Inspections of all systems are required prior to installation, prior to each use, weekly and following dismantling. A thorough inspection of the product by a competent person should be carried out at least annually.
- Manufacturers guidance on levels of repair vary for each system. Always obtain guidance from the manufacturer.
- Clear / sweep the floor before installing the Soft Landing System and remove any obstructions.
- Do not install Soft Landing Systems around anything protruding from the floor level such as scaffolding or rebar.
- Soft Landing Systems should never be stood on.
- Soft Landing Systems are not designed to be used as a working platform or as access.
- Ensure the structure is capable of retaining the Soft Landing System prior to installation.
- No overhead activities should be undertaken whilst the system is being installed, adjusted or dismantled.
- All openings in external walls and floors must be suitably protected to prevent the faller falling through any voids but should not block out all natural daylight.

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- Ensure there is adequate ventilation to avoid asphyxiation when using petrol driven blowers for inflating the system.
- Ensure Soft Landing Systems are installed an adequate distance beyond a leading edge where they are being used to arrest a fall.

Rescue

Consideration must be given to the rescue of any operative who has fallen into a Soft Landing System. Fallers will typically self-rescue from a Soft Landing System, but to meet the obligations within the Work at Height Regulations, there should be a clear plan in place. It is not possible for FASET to be prescriptive due to site variations, however the following bullet points should always be considered:

- Who will be in charge when a rescue needs to be carried out. Everyone needs to know the chain of command.
- Who will write and communicate the rescue plan and ensure that all participants understand their role.
- How it will be ensured that all resources (equipment and people) referenced in the plan are appropriate, trained and available at all times.
- What parameters will define whether a rescue is appropriate.
- What parameters will define whether the emergency services should be contacted.
- Specification of the role of the competent first aider.
- How the Soft Landing System will be quarantined.
- Who will report the “fall” and get it checked.
- Specification of the rescue route and casualty station.



Practice rescue drills should be carried out.

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