



Did You Know?

Edition 6 | Full Body Harness Standards

Full Body Harnesses are designed to safely hold the user in place and spread the weight load when in use working at height. The harnesses should also be tested for suitable strength and dynamic performance that will allow it to hold the user in place in the case of a fall arrest scenario.

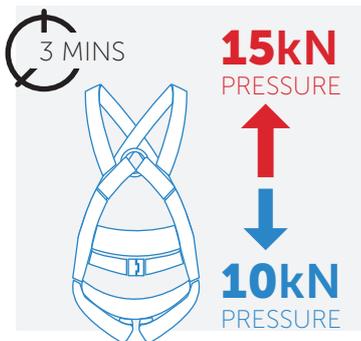
▼ EN 361:2002

EN 361:2002 is the European Standard for Full Body Harnesses that are designed for working at height in both industrial and commercial sectors. The standard specifies the performance tests and requirements that are applied to the harnesses before they can be awarded the EN 361 standard and are suitable for use in the work place.

STRENGTH TESTS

Strength, or tensile tests are used to gauge the breaking strength of the whole harness. Tensile forces are usually applied for at least 3 minutes. The standards are based on a safety factor of 6kN.

Harnesses have different levels of force applied for upwards and downwards directions. A force of 15kN is applied for testing in an upwards direction and a force of 10kN is used when applied in a downwards direction.



DYNAMIC PERFORMANCE

In this test, the harness is fitted with a 100kg solid torso dummy attached to a 2 metre length of 11mm rope connected to a solid anchorage point and dropped in free fall for 4 metres.

The test is carried out twice, once from an upright position and once with the dummy upside down on release. The harness must hold the dummy after both drops in a position not exceeding 50 degrees from the upright position.



CORROSION RESISTANCE

The metallic components in a harness must also be able to withstand a minimal resistance to environmental corrosion, specifically rust.

This test is performed by placing the metal components in a sealed chamber with a salt water mist, designed to induce rust and corrosion, for 24 to 48 hours. After the test, the components are thoroughly inspected for any signs of rust and to ensure they still function as normal.



▼ FURTHER STANDARDS FOR WORKING AT HEIGHT

EN 358:2000

This standard applies to PPE for work positioning and prevention of falls from a height, specifically belts and lanyards meant for positioning or restraint. There are several requirements to the EN 358 standard including minimum width of the waist belt (minimum 80mm without back support, or 43mm otherwise) and the necessity for the belt to be comfortable and easy to adjust. Similar to EN 361, waist belts must pass a static strength test, a dynamic strength test and be tested for corrosion resistance.

EN 813:2008

EN 813 specifies requirements, testing, marking and information to be supplied by the manufacturer for sit harnesses to be used in restraint, work positioning and rope access systems, where a low point of attachment is required. Sit harnesses are not suitable for fall arrest purposes, unlike full body harnesses.

▼ WHY DO WE NEED FALL ARREST HARNESSSES?

Fall protection is the most frequently cited OSHA standard for violations in 2015*.

"Falls" account for a total of **39.9% of deaths** in industrial workplaces**.

Did You Know...

Under the PPE regulations equipment must be inspected before each and every occasion of use. Equipment must also be inspected/serviced by competent authorised personnel at least annually. OASIS offers a full PPE inspection service for harnesses, lanyards, karabiners and more. Contact us for details.



Working at heights in today's industrial sectors is something that we cannot shy away from but it is imperative that employers must protect their workers as best they can against the dangers associated with working at height, including falls. Fall arrest protection should be made available and the use of equipment should be enforced to ensure a high level of health and safety. Full body harnesses are just one part of a range of fall arrest equipment which can also include lanyards, ascenders and descenders, karabiners, ropes, pulleys and anchorage slings.

* OSHA.gov/oshastats/commonstats.html - Fiscal year 2015, construction industry

** OSHA.gov/oshastats.commonstats.html - Calendar year 2014, construction industry