

INDIVIDUAL IMPROVISED ANCHOR POINTS

WHAT TO PROOF-TEST TO AND WHY



Standards for Personal Fall Arrest Systems are often confusing and left to interpretation. Therefore, VERI5000™ has provided this guide to help you make an educated decision based on the standards (see below) and the equipment you are using.

WHY TEST TO 1,800 pounds (8kN)?	WHY TEST TO 2,700 pounds (12kN)?	WHY TEST TO 3,600 pounds (16kN)?	WHY TEST TO 5,000 pounds (22.2kN)?
Most SRD's and Lanyards are ANSI tested and rated at 900lbs of force. 900 x 2:1 Safety Factor = 1,800lbs.	Some unique SRD's and Lanyards that are designed differently may be tested and rated at 1,350lbs of force. 1,350 x 2:1 Safety Factor = 2,700lbs.	The fall arrest system must limit maximum arresting forces to 1,800lbs when used with a full body harness. 1,800lbs x 2:1 Safety Factor = 3,600lbs.	Standard 1910.66(10) states: Anchorages to which personal fall arrest equipment is attached shall be capable of supporting at least 5,000 pounds (22.2kN) per employee attached.
See standard below: Standard 1926.502(d) , 1926.502(d)(15)(i) , 1926.502(d)(16)(v) . Standard 1910.66(d),(d)(ii) , (d)(iv)	See standard below: 1926.502(d)(15)(i) , 1926.502(d)(16)(v) . Standard 1910.66(d)(iv)	See standard below: Standard 1926.502(d)/(d)(4) , 1926.502(d)(15)/(15)(i),(d)(16) ii),(d)(16)(v) . Standard 1910.66(7) , 1910.66(d),(d)(ii),(d)(iv)	See standard below: Standard 1926.502(d) , 1926.502(d)(15) . Standard 1910.66(10)

The United States Department of Labor Occupational Safety & Health Administration have laid out a set of standards for General Industry and Construction (full versions available on-line):

1926.502 - Fall protection systems criteria and practices (Construction)

1926.502(d) "Personal fall arrest systems." Personal fall arrest systems and their use shall comply with the provisions set forth below.

1926.502(d)(4) Dee-rings and snaphooks shall be proof-tested to a minimum tensile load of 3,600 pounds (16 kN) without cracking, breaking, or taking permanent deformation.

1926.502(d)(15) Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used as follows:

1926.502(d)(15)(i) as part of a complete personal fall arrest system which maintains a safety factor of at least two; and

1926.502(d)(16)(ii) limit maximum arresting force on an employee to 1,800 pounds (8 kN) when used with a body harness;

1926.502(d)(16)(v) have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet (1.8 m), or the free fall distance permitted by the system, whichever is less.

1910.66 App C - Personal Fall Arrest Systems (Industrial)

I. "Personal fall arrest systems" - (a) "Scope and application." This section establishes the application of and performance criteria for personal fall arrest systems which are required for use by all employees using powered platforms under paragraph 1910.66(j)

(d) "System performance criteria." (1) Personal fall arrest systems shall, when stopping a fall:

(ii) Limit maximum arresting force on an employee to 1,800 pounds (8 kN) when used with a body harness;

(iv) Shall have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of six feet (1.8 m), or the free fall distance permitted by the system, whichever is less.

(7) Dee-rings and snap-hooks shall be 100 percent proof-tested to a minimum tensile load of 3,600 pounds (16 kN) without cracking, breaking, or taking permanent deformation.

(10) Anchorages to which personal fall arrest equipment is attached shall be capable of supporting at least 5,000 pounds (22.2 kN) per employee attached, or shall be designed, installed, and used as part of a complete personal fall arrest system which maintains a safety factor of at least two, under the supervision of a qualified person.

VERI5000™ requires the user to read the manual in its entirety prior to use of the equipment. User should wear appropriate personal protective equipment when performing a proof-test. After each proof test a Competent Person or person who has been trained as a Competent Equipment Inspector must inspect the equipment for cracking, breaking, or permanent deformation of the structure and equipment (OSHA 1910.66 and 1926.502) If the Equipment Inspector or Competent Person is inspecting another manufacturers product that he or she has not been trained on, they must refer to the manufacturer's instruction manual for the proper inspection of the anchor. Some anchors may deform during a proof-test and still hold, therefore meeting their intended purpose. Please consult the Manufacturer of the anchor with any questions on the product and as always, remove any deformed anchors from use. When choosing what to proof-test to, picking the lowest force that meets the requirements will greatly reduce the risk of breaking, cracking or deforming anchors. Pulling anchors to the maximum of 5000lbs may deform the anchor. VERI5000 and or Hydrajaws are not responsible for any damage to the structure being tested.