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ANSI/ASSE Z359 - Requirements for Proper Use and Maintenance of Connectors

These are general requirements and information provided by ANSI/ASSE Z359, the Manufacturer of this equipment may impose more stringent restrictions on the use of the products they manufacturer, see the Manufacturer's instructions.

1 - GENERAL INFORMATION

1.1 - The user's organization shall retain the manufacturer's instructions and make them readily available to all users. Users shall read and perfectly understand the information provided by the manufacturer before using the device, shall comply with all instructions regarding the inspection, maintenance and storage of the equipment and make sure that the device is in perfect condition and working properly. **Important:** this information relates to the characteristics, services, assembly, disassembly, maintenance, conservation, disinfection, etc. of the device. Although it does include some suggestions on how to use the device, it cannot be considered a true to life instruction manual (the same as an operating and maintenance handbook for a car does not teach how to drive it and does not replace a driving school). **Warning: rescue work, tree climbing and works at height are activities with a high degree of risk, which may lead to accidents and even death.** The user takes complete responsibility for the risks deriving from these activities and from using our devices. This device can be used only by individuals medically fit. It is essential that the users of this type of equipment receive proper training and instruction, including detailed procedures for the safe use of such equipment in their work application. ANSI/ASSE Z359.2 establishes guidelines and requirements for an employer's managed fall protection program, including policy statements, duties and responsibilities, training and evaluations, minimum requirements for fall protection procedures, eliminating and controlling fall hazards, rescue procedures, incident investigations, and evaluating program effectiveness.

1.2 - If the user has the slightest doubt concerning the efficiency of the device, it shall be replaced immediately, particularly after having used it to arrest a fall.

1.3 - Minimum resistance of anchoring points, on both natural and artificial elements, can be at least 12 kN. The assessment of those made on natural elements (rocks, plants, etc.) is possible only empirically, and can therefore be performed by a competent expert, while those on artificial elements (metal, concrete, etc.) can be calculated scientifically, and can therefore be performed by qualified personnel.

1.4 - 414.000 - 414.T00 OVALONE DNA ANSI is tested in accordance to ANSI/ASSE Z359.12-2009.

This device is inspected in accordance with the procedures of the Quality System certified according to the UNI EN ISO 9001.

Warning: laboratory tests, inspections, information and norms do not always manage to reproduce what actually happens in practice, and so performance under real usage conditions in a natural environment may differ, sometimes even considerably. The best information can be gained by continual practice under the supervision of skilled, expert, qualified individuals.

2 - WARNINGS

- It is strictly forbidden to altering and/or repair the device, only the equipment manufacturer, or persons or entities authorized by the manufacturer, are allowed to repair the equipment.

- Before use make sure that the device is suitable for the purpose: only the techniques that are not crossed out are permitted, any other use is considered improper and therefore potentially dangerous.

- Verify combinations of components or sub-systems, or both, they have not to affect or interfere with the safe function of each other.

- Improper use, deformation, falls, wear, contact with chemical substances, chemical contamination, exposure to direct sunlight (UV degradation), heat sources and flames, exposure to temperatures below -20°F or higher than +120°F, are some examples of other causes that may produce a harmful effect, or reduce, limit or end the life of the device. We strongly suggest using the device personally in order to continuously monitor the degree of protection and efficiency.

- At low temperatures, the presence of moisture can form ice that,

on textile devices, can reduce flexibility and increases the risk of cutting and abrasion.

- Pay particular attention when using the equipment around moving machinery and electrical hazards, sharp edges or abrasive surfaces.

3 - MAINTENANCE AND STORAGE

- Equipment which is in need of, or scheduled for maintenance shall be tagged as "unusable" and removed from service.

- Maintenance and storage of equipment shall be conducted by the user's organization, consists of washing in warm drinking water (90°F), possibly with the addition of neutral detergent. Rinse and, without spinning, leave it to dry without leaving it in the direct sunlight.

- In addition, if necessary disinfect the device, soaking it in warm water containing 1% of sodium hypochlorite (bleach). Rinse with drinking water and, without spinning, leave it to dry without leaving it in the direct sunlight. Avoid sterilising textile devices in an autoclave.

- Equipment shall be stored in a manner as to preclude damage from environment: maintain temperature between 5-30°C (40-85 °F) and relative humidity between 40-90%, avoid exposure to light, UV, sharp edges, excessive moisture, oil, chemicals and their vapours or other degrading elements.

- Exceptional maintenance and storage issues, which may arise due to unusual conditions of use, shall be addressed with the manufacturer.

4 - INSPECTION

Inspection criteria for the equipment shall be set by the user's organization. Such criteria for the equipment shall equal or exceed the criteria established by ANSI/ASSE Z359.2:13 or the manufacturer's instructions, whichever is greater. The outcome of these periodic inspections shall be recorded on the device's inspection chart or a designated register. When inspection reveals defects in, damage to, or inadequate maintenance of equipment, the equipment shall be permanently removed from service or undergo adequate corrective maintenance, by the original equipment manufacturer or their designate, before return to service.

In addition to the inspection requirements set forth in the manufacturer's instructions, the equipment shall be inspected by the user before and after using the device and additionally by a competent person, other than the user, at interval of no more than one year for:

- absence or illegibility of markings,
- absence of any elements affecting the equipment form, fit or function,
- evidence of broken stitches fixed to load indicators,
- evidence of defects in or damage to hardware elements including crack, sharp edges, deformation, corrosion, chemical attack, excessive heating, alteration and excessive wear,
- evidence of defects in or damage to strap or ropes including fraying, unsplicing, unlaying, kinking, knotting, roping, broken or pulled stitches, excessive elongation, chemical attack, excessive soiling, abrasion, alteration, excessive aging and excessive wear.

5 - DEVICE LIFE

The lifespan of this device is 10 years from the date of production (indicated in the serial number) as long as: maintenance and storage are carried out as described in point 3, the results of pre-use, post-use and periodic inspections are all positive, and the device is used correctly.

6 - LEGAL OBLIGATIONS

Professional and recreational activities are often regulated by specific national or governmental laws that may impose specific limits and/or requirements for the personal fall arrest systems, which includes the Connector in their components. The user is obliged to know and apply these laws, which may in some cases impose obligations different from those contained in this information.

7 - GUARANTEE

The manufacturer guarantees that the device complies with regulations in force at the time of production. The guarantee covering faults is limited to production defects and raw materials. It does not include wear and tear, oxidation, damages caused by improper use and/or during competition, incorrect maintenance, transport, conservation, storage, etc. The guarantee becomes void as soon as the device is modified or tampered with. The validity corresponds to the legal guarantee of the country where the device was sold by the manufacturer, with effect from the date of sale. After this period no claim can be made against the manufacturer. Any request for repair or replacement under this warranty shall be accompanied by a proof of purchase. If the defect is accepted, the manufacturer, at its sole discretion, will repair, replace or refund the device. Under no circumstances does the manufacturer's liability extend

beyond the invoice price of the device.

8 - USE INFORMATION

The Personal Protective Equipment (PPE) known as **OVALONE DNA ANSI**, in the versions **Autoblock 414.000** and **Twistlock 414.T00**, (fig. 1) is a connecting component used to connect two or more pieces of equipment together in Personal Fall Arrest Systems. This device is certified according to ANSI/ASSE Z359.12-2009.

Nomenclature of parts (fig. 1): (A) Body made in Carbon Steel, (B) Gate made in Steel, (C) Automatic gate locking device made in Steel: (C1) Autoblock, (C2) Twistlock.

Carefully assess the suitability of the attachment/anchoring point chosen in relation to the application for which it is to be used, applicable governmental regulations and standards on occupational safety. Especially, always make sure that the connectors attached to the attachment/anchoring point are free to move and take up a position in the foreseeable direction in which the load will be applied, with the gates fully closed at all times.

Only permitted position, providing the greatest strength (fig 2a).

Warning:

- **not permitted positions, those can cause lateral and/or sideways forces and/or twisting and/or direct forces on the gate (fig. 2b).**

- **connecting using wide elements reduces the connector's strength (fig. 3) and may compromise releasing and closing the gate (fig. 4).**

Important:

- before using the connector for hanging, calculate the actual loads that will be applied (fig. 5).

- it is recommended to never exceed ¼ of the load marked on the connector (SWL 1:4),

- make sure the gate locking device works as described in figures 6 and 7,

- do not open the gate when the connector is loaded,

- regularly inspect and monitor the system during use and check locking and positioning of the connector,

- take the connector's length into consideration, when using it in a system to prevent falling.

Fig. 8 - Minimum strength of the connector when loaded in directions set by ANSI/ASSE Z359.12.

9 - CHECKS BEFORE AND AFTER USE

Check and make sure that:

- The connector is suitable for the intended use.

- The connector is not out of shape and does not show signs of cracks or wear.

- The gate opens completely when pushed and closes automatically and completely when released.

- The gate locking device works as described in figures 6 and 7.

Before use, on each occasion check that the device holds correctly by putting your weight on it, in a position that is completely safe.

10 - CERTIFICATION

This device is certified by notified body no. 1539 DOLOMITICERT scrl - zona industriale Villanova - 32013 Longarone BL - Italia.



OVALONE DNA ANSI
414.000 - 414.T00

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MARKING LEGEND	
OVALONE DNA ANSI	Model
414.T00 414.O00	Part Number
ANSI Z359.12	Conformity to ANSI Standard
kN ◀ ▶ ...	Max load in major axis with gate closed
16 kN	Max load on the gate
	Always read and follow the information supplied by the manufacturer

SERIAL NUMBER LEGEND	
LLLLLL YY XXXX	Serial Number
LLLLLL	Batch Number
YY	Year of production
XXXX	Progressive number

CONTROL CARD				
1 - Item				
2 - Year of production		3 - Serial N°		
4 - Date of purchase		5 - Place of purchase		
6 - Date of first use		7 - Name of the user		
8 - Date of inspection	9 - result	10 - Comments	11 - Signature	

LEGEND	
n° Figures number	Improper use may be very dangerous
OK! Correct use	Never do it: risks fatal accident!
X Absolutely no correct use	
Anchor point	

1

AUTOBLOCK TWIST LOCK

2

OK!

NO!

3

NO!

4

NO!

5

10 kN, 5,8 kN, 38,3 kN

OK! **NO!** **NO!**

6

TWIST LOCK

7

AUTOBLOCK

8

40 kN (8992 LBS), 20 kN (4496 LBS), 12 kN (2697 LBS), 16 kN (3596 LBS), 16 kN (3596 LBS)

65 mm (2,56"), 108 mm (4,25"), 18 mm (0,71")

230 g (8,1 oz)