

An appendix to the User Manual: “LiteMESH” FALL ARREST SYSTEM

SPECIFIC SITUATIONS – TECHNICAL DESCRIPTION

The LiteMESH fall arrest system, attached directly to the edge of the working surface, is a system protecting people and objects from falling, in accordance with the standard EN-1263-1_2015-02E:

(Chapter: “Introduction” of the above mentioned standard)

Safety nets used in construction and assembly works e.g. to protect from the fall of objects and people while building halls and bridges, in open construction works, as a side protection, as systems protecting from falling or catching falling objects, assembled on scaffolding.

The norm specifies a few types of safety nets.

One of the type of a safety net is the U-type, used vertically.

The U-system is aimed to catch objects or people that fall into the net directly from the working level. Falling into the U-type safety net shall be treated as a fall directly from the outer (or inner) edge of the working area where the net is assembled.

It means that in case of a dangerous event, the system protects from falling from the height exceeding ~ 40 cm.

Falling into the net directly from the working area is not a “deep fall”, as described in the EN-1263-1_2015-02E standard.

(Chapter: “Introduction” of the above mentioned standard)

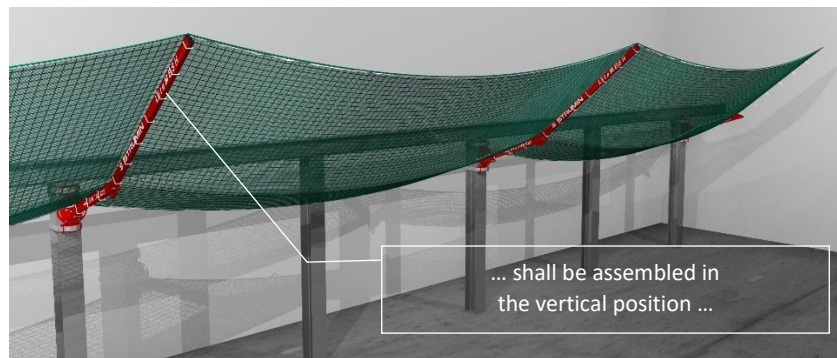
„...Technically appropriate and economical solution which saves people falling from height. Used for protecting from deeper falls.”

To save people falling from height are used other systems, e.g. T-type or V-type.

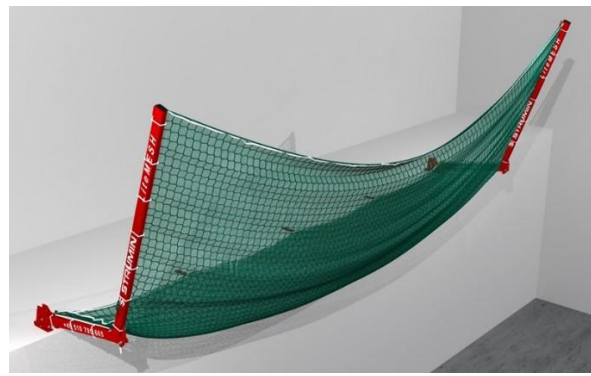
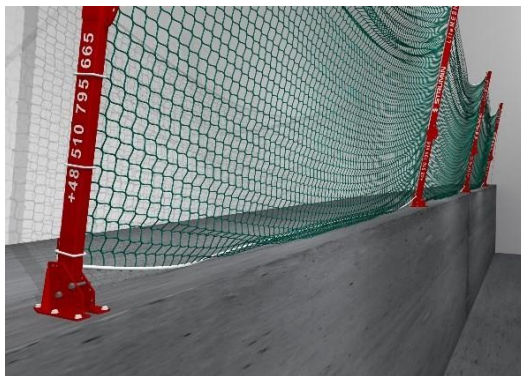
AN EXAMPLE OF A SYSTEM ASSEMBLED IN THE U-TYPE NET CONFIGURATION.

1. THE POSITION OF THE CONSOLE AGAINST THE EDGE OF THE WORKING LEVEL

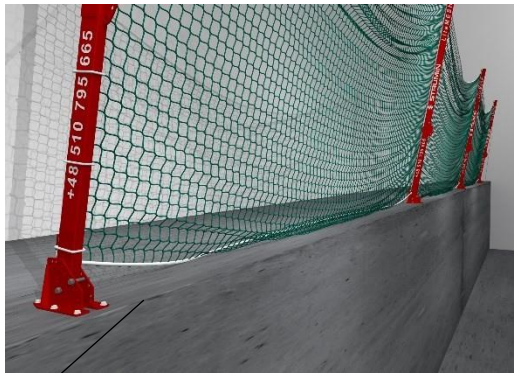
(The lifting arms of the console shall be assembled in the vertical position in order to meet the standards' requirements)



Similar configurations:



During the assembly works, the users shall bear in mind that the bottom edge of the net shall be placed as close as possible to the edge of the working level (the existing working level or projected working level and outer edge).



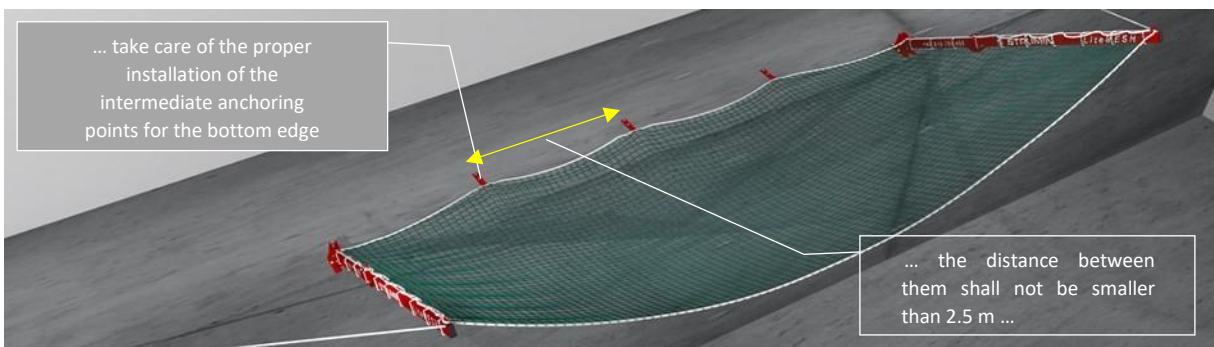
... the existing working level, the outer edge...



... projected working level, outer edge...

2. ASSEMBLY OF THE BOTTOM EDGE LINE BETWEEN CONSOLES

In order to ensure the safety of users standing close to the edge of the working level, it shall be ensured that the intermediate anchoring points for the bottom edge line, touching the edge or placed close to the edge, are correctly assembled. The intermediate anchoring points are placed between different consoles and the distance between them shall not be smaller than 2.5 m.



... take care of the proper installation of the intermediate anchoring points for the bottom edge

... the distance between them shall not be smaller than 2.5 m ...

The assembly of the anchoring points to the edge line can be performed in a couple of ways:

1. Direct plait to the holder's edge line with a specially prepared C-type ending and then screwing to the working surface or any other surface with the use of screws for concrete.
2. Indirect assembly where the connector between the anchoring point and the edge line is a line (the same as the line used for bonding the net with the console or another net)
3. Intermediate assembly performed with the use of a snap ring or a shackle. As a connector between the anchoring point and the edge line is used a snap ring or a shackle.

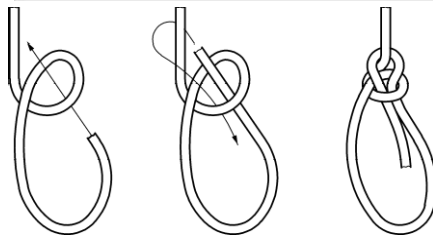
While joining the anchoring points and the edge line with a line used for bonding it should be remembered that such type of connection shall be durable and protect from accidentally unbinding or loosening while using.

The correctly performed connection (knot) and its durability shall be checked during the quick inspections described in the User Manual. Used loops:

- Flat loop
- "Bowline" loop



FLAT LOOP



BOWLINE LOOP

SPECIAL CASE — ASSEMBLY OF AN INTERMEDIATE ANCHROING POINT TO A TRAPEZOIDAL STEEL SHEET

The anchoring of an intermediate anchoring point (between the consoles) to a trapezoidal steel sheet can be regulated with standard metal sheet screws, because the intermediate anchoring points are used only as auxiliary elements used for “forming / placing” the line correctly against the floor edge. In case of a person falling through the edge, the net will be deformed creating “a pocket / bag” for the falling person’s body.

An element that was caught is below the level of the bottom edge line and breaking of the intermediate assembly points has no influence on catching the element.

Because of that, the intermediate anchoring points do not have to meet strict requirements, e.g. when it comes to the assembly of the console to a floor or other load-bearing structures.

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