	CO-ORDINATION OF NOTIFIED BODIES PPE Regulation 2016/425 RECOMMENDATION FOR USE	PPE-R/11.088 Version 02
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Question: Most fall protection systems require a certain element of installation (such as connecting various components) and therefore rely on subsequent training by the end user. However can Notified Bodies assess products that require techniques to be implemented by the end user (e.g; dressing a specific knot, making a spliced end on a rope,...) ?		
Solution: Yes; but only if the end user does not impact the construction of the product <u>Examples</u> <ul style="list-style-type: none"> • A termination (e.g.; figure of eight knot for arborist, mountaineering, caving ...) that does not impact the construction of a rope can be made by the end user. • A termination that impacts the construction (e.g., spliced end on a rope) cannot be made by the end user. It shall be certified and under C2/D production control • PPE systems against falls from a height that include friction hitches, which might need to be adjusted by the end user, can be certified as a whole system: see the following test procedure and requirements for friction hitches <p><i>Note: the manufacturer can allow the end user to replace a component as a spare part (e.g. ventral attachment using a knot on an arborist harness)</i></p> <p><u>Friction hitches included in a PPE systems against falls from a height</u> <i>Note: Examples for friction hitches are: prusik, valdotain-tresse, distel, michoacan, machard,....</i> <i>Since there are a lot of different possible variations of these knots (e.g. 4-coils or 5-coils), there is no list of allowed friction hitches in this document.</i></p> <p>1. General requirements The manufacturer must define all intended modes of use and must refer to EN standards (if applicable). All system components must be finished and ready-to use products with prefabricated terminations.</p>		

2. Testing

The tests should be carried out according to the intended use of the whole system (e.g. EN 358, EN 795, EN 12841 ...). If there is no applicable standard for the whole system, the tests should be carried out according to a risk assessment which considers: the intended use (manufacturer's instructions and information), the Essential Health and Safety Requirement of the PPE Regulation, test procedures from other EN standards and applicable RfUs (e.g. maximum user weight).

All combinations of different knots and knot materials ('lanyards') on different guiding ropes must be tested. Example for a friction hitch on a guiding rope the following test protocol would apply:

- Guiding rope A + Lanyard A as prusik
- Guiding rope A + Lanyard A as distel
- Guiding rope B + Lanyard A as prusik
- Etc...

A grab test according to EN 12841:2006 – 4.3.3 (5.5.2) is mandatory.

3. Marking

Each load bearing component that might be removable must have a marking, which states the correspondence to the whole system.

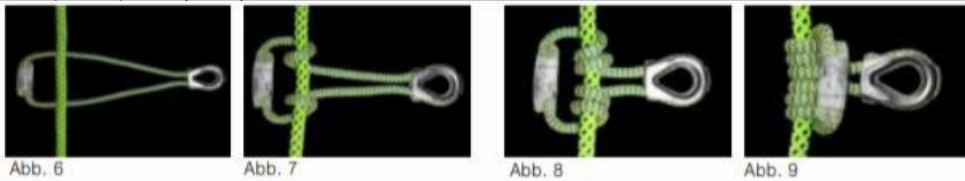
Example: 'Component name 1' part of 'system name', 'Component name 2' part of 'system name', etc.

4. Manufacturer's instructions and information

The manufacturer's instructions and information must show and explain all possible attachments of the system.

If parts can be replaced, or if it is very likely that they will be replaced by the end user, a detailed description with pictures must be included in the Instructions for use

Example for prusik (3-coil):



Every tested and approved combination of guiding rope and friction hitch must be explained in manufacturer's instructions and information.

Note: The length of the lanyard (for the friction hitch) is very important for the functionality and performance of the whole system.

The setup of all approved friction knots must be explained in the instructions for use.

Every system component must be identifiable.

There must be a described functional test in the manufacturer's instructions and information to test the performance of the friction knot (which movement is allowed; in which directions the knot should not move etc)

There must be a warning to check the reliable grab function of the friction hitch before every use.